BUILDER

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JUNE 1953

75 CENTS





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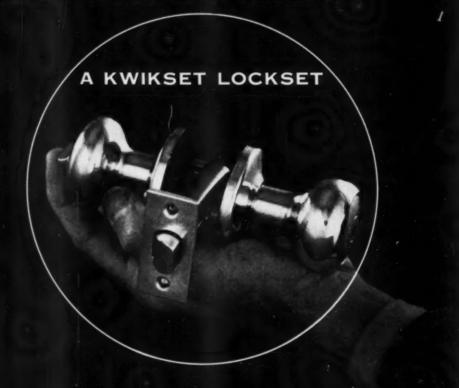




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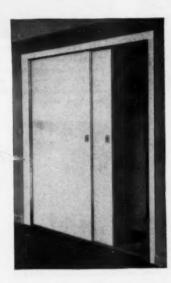
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FOUR, FULL-SIZED COROX UNITS—Two giant 8-inch and two 6-inch units, all with five controlled heat settings. Fast, economical, easy to clean.



ON THE COVER-Chosen for its expression of the trend in modern home design, this month's blueprint house is shown in color on the cover and on pages 33-36. Its characteristic ranch-type exterior has large windows extending from the low sweeping roof line to the ground. The interior displays many ideas of contemporary design such as exposed ceiling beams and open planning visible in the kitchen view. (upper right). The kitchen adjoining the living-dining-activities area has abundant cabinet space, washer and dryer connections and vent fans.

Using a portable power backsaw to cut large copper pipes while workmen proceeded with other operations helped reduce the cost of copper plumbing installation. This plumbing contractor further reduced costs by designing his layout to use full lengths wherever possible, by prefabricating plumbing trees and by speedy installation of copper joints. To see how he achieved savings see pages 74-75,



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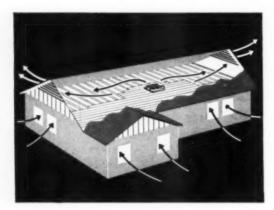
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Build Quality Only

WHEN Henry Ford introduced his famous Model T he became the first manufacturer to produce an automobile within the price reach of the middle and lower middle income groups. The instantaneous popularity of Model T led Ford to revolutionary production and employee relations techniques adopted to drive the price of the automobile still lower.

Properly credited with being the man who put America on wheels. Ford suddenly went in for a reversal of basic policy and began manufacturing more expensive Fords -larger, heavier cars than the Model T. Today there is nothing in the automobile field comparable in price and style to the

Model T of its time.

The reason for this is that Ford discovered something fundamental about the buying habits of the American people. After other manufacturers had saturated the field for new automobiles there suddenly sprung up a vast trade in used cars. Both Model T new and used cars showed signs of suffering in competition with larger used automobiles. What Ford discovered was that Americans prefer larger and more powerful used cars to smaller and lighter new ones at the same price.

Out went Model T and in came Model A. In a relatively short time Model A was superseded by a line of Fords styled and built to compete in price with the products of several other manufacturers. Then came Lincoln and Mercury. Ford knew that Model T was salable only while it was putting America on wheels, but that it could get no acceptance once heavier used cars were available. Ford needed both the tradeup and the trade-down market, and Lincoln.

Mercury and the new Ford provided it.

Until World War II the building industry had always operated as Ford eventually learned he would have to operate, not because the unorganized and inarticulate building industry had a plan, but because it was quite unknowingly being guided by

American buying habits.

Following World War II builders, even though organized and articulate, were pressured into a "Model T" program to house veterans and to relieve the housing shortage. Economically, the postwar "Model T" home building program was wrong. Its moral worth may justify the economic error, but nothing can be gained by laboring the point, since public and government pressure accomplished the fact.

But with the housing shortage relieved, and with an organized industry available to study housing needs and economics, the time has come to take a long look at the history of the Ford Motor Company, and start thinking in terms of balanced production of "Ford, Mercury and Lincoln" houses. Since the American public demonstrably wants quality and styling in its automobiles, whether they be new or old, expensive or inexpensive, it is reasonable to conclude that the same public wants the same thing in houses, and that there is a point in size, styling and quality below which it is not feasible to build. Increasingly the market will be trade-up or tradedown in size, and only the houses built of branded, advertised products, styled smartly and priced accordingly can survive.

In a highly competitive market, like today's, there is no more room for a Model T house than there is for a Model T car.

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TRENDS in the Building Field

dwelling starts steady as costs increase

Starts of dwelling units for the first quarter were only slightly less than in the same period last year in spite of a decrease of seven per cent in March. Starts in March this year totalled 97,000, compared with 103,900 a year ago. During the first three months 245,000 units were started as compared with 246,500 a year ago.

Dollar Volume

The over-all dollar volume of construction increased in the first months of 1953 by seven per cent. Increases registered in the dollar volume of dwelling units (11 per cent), residential alterations (6 per cent), commercial building (44 per cent), and public construction (3 per cent). All phases of construction were affected by general increases in costs of materials and labor. This largely accounts for the fact that the dollar volume of residential construction increased in spite of the further fact that the number of dwelling units was about equal to that of a year ago. Another factor is that an unusually large number of dwelling units started last fall were being completed in the first months of 1953, adding to the dollar volume of construction during the period.

Increase in Commercial Construction

The increase in dollar volume of commercial building of 44 per cent is evidence of the resurgence of commercial construction after controls were lifted last fall. Latest information shows increases in the number of all types of commercial buildings under construction, including stores, commercial garages, service stations, office and bank buildings and other such buildings.

Price Changes

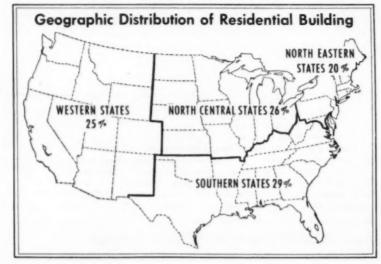
With building construction at high levels, both material and labor costs are increasing. The increases over last year are small, but added to price increases over last year the effect is a 20 per cent increase in construction costs since 1949.

All items, except Douglas fir lumber, flooring, asphalt shingles and windows show price increases since last year. The average hourly earnings of construction labor have registered an increase of 6 per cent. The construction cost index of residences has gone up two per cent and the cost indexes of apartments, hotels and office buildings has gone up three per cent.

General Business Situation

Business in general is good. Sales of consumers durable goods, including automobiles, radios, television sets and appliances are high. There is considerable apprehension, however, about inventories which are at an all time record high and consumer credit which is also at an all time high.

The big question is, "How long can consumers absorb 1,000,000 new houses, 6,000,000 passenger automobiles, 9,000,000 television sets plus millions of other major appliances?



HOW'S BUSINESS? Per Cent Change Compared With Last Year

Dwelling Units Started	Percent Up	Percent Down	
lonth of March anuary through March		-7 % -0.6 %	
ollar Volume of Construction			
irst Three Months)			
welling Units	+11%		
Alterations	+ 6%		
ndustrial		-5 %	
ommercial	+44%		
arm ublic Construction	+ 3%	-3 %	
Total Construction	+ 7%		
rice Changes			
Common Brick	+ 3%		
Cement	+ 1%		
Dimension Lumber (Douglas Fir)		-4 %	
Flooring	+ 7%		
Doors		-8 %	
Paint (outside)	+ 3%		
Bath Tubs	+ 3%		
Asphalt Shingles		-3 %	
Window Glass	+ 2%		
Nails	+ 8%		
Insulation Board	+ 3%		
Windows, Wood		-2 %	
Windows, Steel	N.C.		
Average Hourly Earnings			
Construction Labor	+ 6%		
Construction Cost Indexes			
Residences	+ 2%		
Apartments, Hotels Office Buildings	+ 3%		



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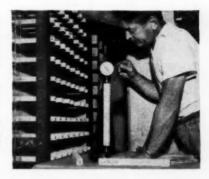
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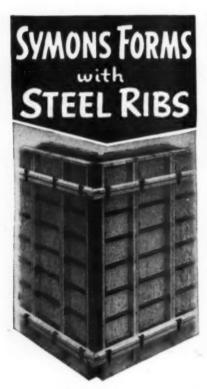




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ON and OFF the RECORD

TRAILERS, according to a recent survey, now house 1,850,000 people. That is probably between 600,000 and 700,000 family units.

WHAT, ASKS A BUILDER, can we do to get these people out of trailers and in permanent houses?

ANOTHER BUILDER replied that home builders can press for local tax legislation that will force trailer occupants to pay their full share of school and other taxes. Maybe, he said, that will equalize costs and make ownership of small homes more attractive.

IT MAY BE TRUE that trailer occupants do not pay their full tax share. But, whether they do or not, tax adjustment one way or the other likely would not be enough to induce them to abandon the trailers for houses.

TRAILER LIVING on the scale to which it has grown clearly must be ascribed to one or a combination of three things. These are economy, mobility and compactness. Before the home building industry decides that it would like to try selling people away from trailer living it is a good idea to do some research.

IF RESEARCH discovers that trailer occupants are motivated primarily by the mobility and nomadic features of their way of living there is nothing that home builders can do to get that market.

BUT, IF RESEARCH should find that trailer occupants buy and occupy trailers because they want to own something and can own a trailer, but not a house, there is clearly a challenge to home builders to come up with smaller and less expensive housing units than anything thus far contemplated.

THAT IS, if they want to invade the trailer market. The fact that people in large numbers will live in the restricted quarters of a trailer either through choice or through economic necessity, indicates that they will, if they must, live in smaller houses than anything the industry has provided.

PROBABLY THE MARKET, as reflected by the reported 1,850,000

people now living in trailers, is not large enough to warrant an expensive survey. But, if the number of trailer residents is increasing rapidly, and for economic reasons only, it will have to be conceded that the trailer industry has found a way to house a segment of the public which the home building industry has not found a way to reach.

THE ANSWER to providing young married couples with small housing units following World War I was apartment buildings with 1½ and 2-room units at high rentals. Rentals of many of these were 60 to 90 dollars a month.

THE POST WORLD WAR II trailer is in many respects a better answer. It is engineered to use every cubic inch of space. That was not true of most of the post World War I apartments.

AND IN ADDITION the trailer can be purchased with a small down payment, and easy monthly payments. Second-hand and third-hand trailers can be purchased even more easily. The apartment of the early twenties could not be bought at all.

IF THE BUILDING industry wants the trailer market, or wants to compete with it, the answer may lie in taking the best measures of the post World War I apartment, and the best engineering features of the present trailer, and coming up with an entirely new concept of small, low cost housing.

WE MIGHT, for instance, revise our ideas of minimum lot sizes. Get them way down.

GET THEM DOWN to something comparable with the space occupied by a trailer. Possibly we should think in terms of lots 20 feet wide and 30 feet deep, or even less. The cost of such a lot soon would offset space rental in a trailer park.

DESIGN-WISE the apartment of the early twenties had a living room, a wall bed that folded into an alcove or closet and a kitchen-dinette. It may be that the trailer people took off from this kind of unit, and simply applied better engineering principles to space.

CYTEL THE FEB HEAVY IT IS NOT the intent of these observations to promote a unit to compete with trailers. But, following World War I, young vets did live in small, high rental apartments. Today, young couples and many old ones are living in smaller, low price trailers parked on very small plots of ground. It is not impossible that a permanent housing unit which could be a contracted apartment and a slightly expanded trailer, located on a plot not much larger than a trailer anchorage could find ready

THIS LOOKS like a pretty well beaten up lock, and it is. Burglars, trying to force entry into the desert house of R. M. Chesler, Palm Springs, California, put two 45



caliber bullets into the lock at vital points, then tried to punch the locking device free. All they succeeded in doing was to jam the tumblers. But the lock held. It's an EX617 made by the Corbin Lock Co. Another of numerous examples of quality building products that do what they are made to do.

WHAT NEW PRODUCTS, appliances or equipment, or changes in these, would you like to see in 1953?

AMERICAN BUILDER directed this important question to the nation's building experts recently. More than 40 percent of them said one thing—"improve the kitchen."

AS IF IN ANSWER to this directive, Cornell University has just revealed an entirely new concept of kitchen planning after six years of intensive research. Look for the story in this issue.

BUILD-IT-YOURSELF was the subject of an all-afternoon informal discussion with a group of builders recently. Question was what can the industry do about it.

THE ANSWER is not an easy one.
If the cost of home building has
(Continued on page 10)

Two Good Reasons You'll Build BETTER KITCHENS WITH ELKAY...



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include ELKAY Lustertone, the only sink guaranteed to outlast the home in which it's installed. The sterling beauty of Lustertone is an unmistakable mark of quality that reflects confidence in the builder—inspires a buying urge in every prospect. Find out about the new low prices on Lustertone stainless steel sinks—see just why it's an investment in sales appeal and permanent satisfaction you can't afford to leave out of your plans.

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On and Off the Record

(Continued from page 9)

reached a point where amateur craftsmen feel that they can risk results and still come up with house values that save them money they will build their own.

IF THERE IS an answer it can come only from careful study by union labor leaders and builders sitting down together.

THERE WAS A TIME when it was almost the universal practice for housewives to bake their own bread. It was commonly supposed to be better bread than the commercial bakeries could produce, and it was also commonly conceded to be a more economical process.

TODAY, HOME BAKING is almost unknown. How did the commercial bakeries reverse thinking, and capture most of the market. Home builders and labor union leaders might learn some lessons from the bakers, and possibly others, if, jointly, they want to discourage the build-it-yourself trend.

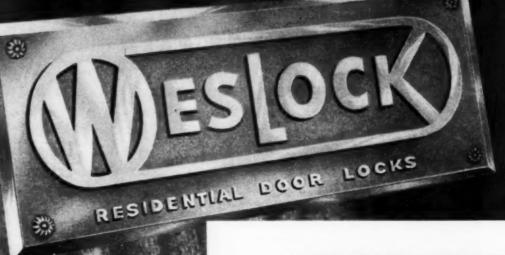
SEVERAL MONTHS ago this magazine advocated that builders demand legislation in unincorporated areas which would set up minimum standards of health and safety for all residential units.

THE REASON for the suggestion was to secure protection for property values, protect the build-it-your-self amateur, and protect the home building industry from criticisms later, when and if many of the build-it-yourself structures do not stand up.

THE SUGGESTION was sharply attacked by proponents of build-itvourself.

WE RAISE the question—what is wrong with asking for legislation that will protect everyone concerned? There is nothing new about protective legislation in most industries, including the home building industry. Few, if any, metropolitan areas are without protective building codes.

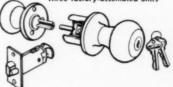
NO ONE can legally prevent any man from building his own house if he wishes to do it. But the community not only can, but has an obligation to protect both the community and the builder against shoddy construction.



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ON EWS

NAHB Offers Solution to Housing Problem

A six-point "crusade" to house the "forgotten families" of America was set in motion last month by the National Association of Home Builders. The program is designed to step up housing production for groups passed over in recent years.

Benefits of the proposed program would accrue to families without enough cash savings to make down payments in many price brackets; families living in homes that need repair and modernization; families in slum quarters that can be salvaged, and families in "rock bottom" slum areas where demolition and redevelopment is the only answer.

Success of this "housing crusade," according to NAHB, would mean attainment of two basic American objectives never before reached:

(a) New or modernized housing would be adequately available to families in the lower-third income group; and (b) the "bust" would be eliminated from "boom and bust" cycles that have plagued the building industry. Home construction would be stabilized at a high level.

Major Objectives

NAHB listed these major objectives of its "crusade":

1. Improvement of the mortgage market. The recent increase in VA and FHA interest rates should restart the flow of mortgage capital.

2. Modernization of the down payment and loan amortization pattern. This would extend home ownership to the mass market of middle and lower income families, and assure continued production of 1.000,000 or more new homes annually.

3. An effective trade-in pragram. More liberal, longer-term FHA-insured loans are needed to enable a builder to accept an old house as a trade-in on a new one, put it back into new condition, and hold it for resale. As many as 250,000 old homes could be "new conditioned" each year.

4. Reconditioning of old but structurally sound houses to halt the "creeping paralysis of urban blight" and to provide decent, low-cost housing. Liberalized home repair loans would make it feasible and attractive for owners to modernize and repair older homes and rental property. 5. Slum rehabilitation. Strict enforcement of health, safety, sanitation and building codes through local policing powers has proved to be a workable method of transforming slums into decent, livable homes, without cost to taxpavers.

6. Slum clearance and urban redevelopment. In city areas where slum decay has advanced so far as to make rehabilitation impracticable, wholesale demolition, replanning and new construction should be undertaken to redevelop the land to its highest and best use.

Legion Favors Extending VA Direct-Loan Program

Proposals to extend VA's direct home loan program picked up added support last month with an endorsement from the American Legion.

The present program is scheduled to expire June 30. Bills have been introduced in Congress to extend the program another two years, until June 30, 1955.

Under the program, VA has a minimum of \$25,000,000 per quarter with which to make direct home loans in "outlying non-metropolitan areas." Originally, VA expected to sell the mortgages it acquired, then use the sale money to make more loans—a "revolving fund" operation.

When the first such paper was placed on the market it attracted no buyers and Congress had to allocate new funds to keep the program going. The new legislation would continue that arrangement.

The interest rate on these direct loans is 4 per cent, and is set in the law. It is not affected by the recent increase in VA interest rates.

Hollyday Named FHA Commissioner



Guy T. O. Hollyday (left), new FHA Commissioner, is congratulated by Albert M. Cole. HHFA Administrator, after Hollyday took his oath of office on April 16. Looking on is Walter L. Greene, whom Mr. Hollyday succeeded as head of FHA. One of Hollyday's first acts was to set up a 6-man advisory board of industry leaders, see page 14



SMALL IN SIZE, ENORMOUS IN EXTRA VALUES

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For further information about Eljer Plumbing Fixtures, write Eljer Co., Ford City, Pa.





FHA and VA Boost Interest Rates

The FHA and VA have increased interest rates on insured and guaranteed home mortgages to 4½ per cent. The action, which the government took "reductantly," was hailed by the building industry and mortgage lenders.

Effect of the change is to increase the VA rate by one-half of one per cent. Carl R. Gray, Jr., Administrator of Veterans Affairs, said recent changes in the money market "pushed interest rates up to the point where VA had no alternative but to raise the interest rate."

The basic FHA rate was boosted by one quarter of one per cent. from 4½ to 4½. HHFA Administrator Albert M. Cole said he believed it better to allow families the funds they need at a slightly higher interest rate than to deny them the chance of buying a home.

Higher FHA rates do not apply on military, defense and cooperative housing. For these, a 4 per cent rate is set by law. Likewise, the 4 per cent rate in VA's direct home loan program is not affected.

Guy T. O. Hollyday, FHA Commissioner, joined with Gray and Cole in stating that the higher interest rates were set in order to attract mortgage funds "sufficient to meet the housing demand throughout the country."

An increase in FHA and VA interest rates was expected for months. Signs of its coming were apparent in recent weeks. The Treasury issued long-term bonds with the highest interest rate in 20 years—3½ per cent—and, more recently, FNMA "suspended" its over-the-counter purchases of regular VA and FHA mortgages. Lenders curtailed their operations in anticipating the increase.

On May 2, FHA sent this telegram to its field offices:

Effective immediately, the maximum interest rate allowable under Section 203, 603-610, 903, and Title I Section 8 is amended to 4½ per cent per annum, and the maximum interest allowable under Section 207 and Section 608-610 is amended to 4½ per cent per annum.

"Upon request of mortgagee new maximum rates will apply to applications in process and commitments outstanding."

The increase to 4½ per cent in the VA rate will still leave veterans an advantage. This is because of the one half per cent "service charge" which borrowers pay on FHA-insured loans. For the borrower, therefore, the new FHA rate is 5 per cent.

Administrator Cole of HHFA com-

mented on the interest boost by saying he felt it was necessary to keep FHA and VA financing "adequately available." He said difficulties in obtaining mortgage funds have been increasing "for the very families the FHA and VA programs are intended to serve."

The Veterans Administrator said VA has been assured by lending institutions that they "will make ample GI loans available to veterans at the new rate." He said more liberal down payment requirements and maturities may result.

VA thinks also that the new 4½ per cent interest rate will "eliminate or reduce the discount charges which many builders have been forced to pay to obtain GI financing." This would remove pressure on builders to pass on discount costs "in the form of a higher price or lower quality construction." Gray said.

The higher VA rate is effective on loans closed after May 5.

Last of Reg. X Controls Removed by HHFA, VA

HHFA has removed the last remaining credit controls on FHA and VA housing which were imposed in 1950 under the Defense Production Act.

The only control on FHA was one which limited the maturity of a mortgage to a maximum of 20 years. This limit is now removed, and maximum maturities up to 25 and 30 years are permitted.

Controls on VA included minimum down payments and a maximum maturity of 20 years. HHFA told VA that it could not remove such restrictions. VA followed through on April 25.

Effect of VA's action permits veterans to obtain home loans with no down payment and with a repayment term up to 30 years. VA noted, however, that the lender has final say on down payments and length of a mort-

BLS Finds First Quarter Wage Scales "Unchanged"

Hourly wage scales of building trades workers remained "virtually unchanged" during the first quarter of 1953, according to the Bureau of Labor Statistics. The finding was based on a survey of seven major building trades in 85 cities.

The bureau estimated the average hourly wage scale of union building trades workers was \$2.62 on April 1, 1953. This was 33 cents per hour above the level of July 1950.

Among the 85 sample cities, the average wages ranged from a low of 90 cents per hour for building laborers to a high of \$3.65 per hour for brick-layers and plasterers.

President Signs Rent Control Law

President Eisenhower on May I signed into law a bill which will continue general rent controls until July 31. Controls in critical defense areas will be extended to April 30, 1954.

This law contains new rules for declaring an area "critical." Establishment or expansion of industrial plants will no longer be a factor, and the tighter definition is expected to reduce so-called "critical" areas to around 40. On May 1 the number was close to 130.

Hollyday Names 6-Man Advisory Group

Appointment of an Advisory Committee to obtain "broader and more effective use of FHA home financing insurance plans" was announced May 2 by Guy T. O. Hollyday, the new FHA Commissioner.

In discussing the new group, Holly-day said: "The sights of these civic and industry leaders will be on the future, to lay plans so that FHA can make a greater contribution in better living for American families."

Members of the advisory group are Fritz Burns, Los Angeles, Calif.; E. A. Camp, Jr., Birmingham, Ala.; Walter Gehrke, Detroit, Mich.; Philip M. Klutznick, Park Forest, Ill.; H. J. Mendon, Los Angeles, Calif., and James Rouse, Baltimore, Md.

An FHA statement identified these men as "national housing leaders." They represent both home financing and home construction. Burns and Klutznick are builders, Rouse is a specialist on slum clearance, and the remaining three members are experts on mortgage financing.

Commissioner Hollyday announced the first meeting of the committee would be held sometime in May in Washington, D. C.

Construction Outlays Are Above 1952 Level

Outlays for new residential construction were estimated at \$887 million in April, an increase of 6 per cent from March, when expenditures were \$840 million. Expenditures during the first four months of this year were up 9 per cent from the same period of 1952.

These estimates were prepared by the Departments of Commerce and Labor in Washington, D. C. Expenditures for all types of private construction, including commercial, are running about 7 per cent above last year.

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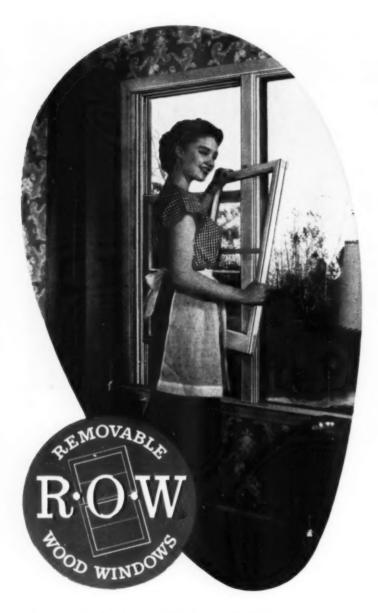
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FHA Down Payments Too High For Non-Veteran Family

By John M. Dickerman

Executive Director.

National Association of Home Builders

Many non-veteran families who try to buy a new home on a governmentinsured mortgage find themselves out of luck in today's market. Between

taxes and the high cost of living, they cannot save enough money to meet the big down payments required on a Federal Housing Administration loan.



That is the collective answer returned by leading builders all over the country in response to a recent survey conducted by the National Association of Home Builders. A total of 1,440 of 1,500 reporting builders said, in effect, that FHA's down payment schedules fail completely to recognize the needs and financial status of the millions of middle income families who make up the mass housing

market.

The builders reported that, on a national average, three out of every five families who tried to buy new homes under the FHA program within the past six months had to be turned away because they couldn't make the down payment, even though their incomes were ample to take care of the monthly carrying charges. And many of those who did buy had to settle for smaller homes than their families required, because of the down payment

One consistent complaint was heard from builders everywhere: FHA appraisals are far too low. Based on outmoded cost data, the appraisals often run 10 or 15 per cent below current market values, with the result that the buyer has to raise even more cash for his down payment.

A California builder protested that FHA appraisals in his area run about \$12,000 on homes that can't be sold for less than \$15,000. Another in Idaho said he is being driven out of the middle-priced market and into high-cost construction, because "it is a lot easier to get \$4,000 down on an \$18,000 house than it is to get \$2,400 on a \$12,000 house."

Many of the reporting builders pointed out that the prospective buyers they are forced to turn down are living in apartments on which the rentals are far higher than the monthly carrying charges would be on a new home. The findings of this survey lend weight to the contention of organized home builders that FHA down payments must be reduced, particularly in the middle-priced brackets, if the non-veteran is to get a fair break in the competition for housing.

The National Association of Home Builders already has proposed a new, reduced scale of FHA down payments that .would enable the industry to maintain an annual production of more than 1,000,000 new homes and, at the same time, protect the mortgage holder's investment.

Briefly, the proposed sliding scale would provide for a maximum FHA mortgage not in excess of 95 per cent on the first \$8,000 of value, plus 80 per cent of the next \$7,000 value, plus 60 per cent of the next \$5,000. On mortgages above \$20,000 the loan would be a straight 80 per cent of value.

Adoption of that scale would have the greatest impact in the middlepriced housing bracket. On a \$12,000 mortgage, for example, the down payment would be only \$1,200 instead of \$2,400 as at present, and the down payment on a \$15,000 mortgage would be cut from \$3,000 to \$1,500.

The effect would be to open up a whole new market, and restore the non-veteran family to the point where it can get the kind of housing it needs on terms it can afford to pay.

Buyers Want 1953 Design New Jersey Builders Told

"Twenty per cent of the builders in New Jersey are doomed to fail because they are building 1941 homes for the 1953 market," said B. J. Bergton, Teaneck, N.J., realty man, at a recent meeting of the Home Builders League of South Jersey, held in Camden.

Backing his provocative statement Bergton declared that a new type of buyer, motivated by desire rather than need, was entering the market. These buyers, in his opinion, are better informed than those of the immediate postwar period.

The days of the minimum house are past, he continued, with the warning that even the lowest-price house must contain some feature offering more in convenience, comfort or livability than a competing house in the same price class. He outlined several features in various price ranges being demanded by today's buyers. Potential owners of new luxury homes, he noted, are seeking units with two-car garages, two



"Key to Happiness" is presented by Memphis' Mayor Frank Tobey to Mrs. John Hummel, purchaser of the 45,000th house to be completed since World War II. At the right are William D. Jemison, Jr., president of Home Builders Association of Memphis, and Mrs. Hummel's small son. Andy

Memphis Builders Assn. Marks 45,000th Home

The Home Builders Association of Memphis held an official opening of the 45,000th home built in the city since the close of World War II, as an added feature of their spring Parade of Homes. Construction of the house was by Greer & Kimbrough. Memphis builders, according to W. D. Jemison, Jr., Memphis Builders president.

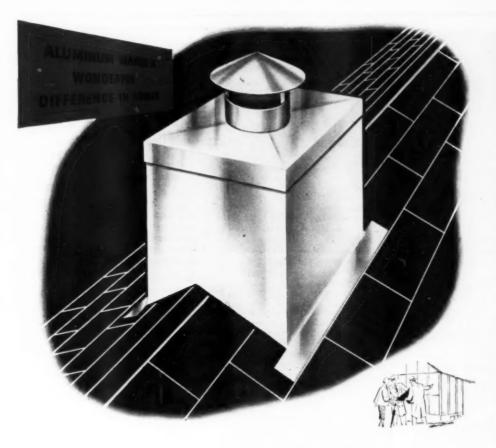
A population increase of an estimated 88,000 persons since the war has necessitated a building drive in Memphis. The Builders estimate that the industry has housed 65,000 persons more than the estimated population growth—housing for about 153,000 persons.

"With 29 out of every 100 Memphians living in a house less than seven years old. Memphis may . . . claim to be 'America's best-housed city,' " said Jemison.

The local builders, with the 45.000th unit completed, are not slowing down. There were 2,600 living units under construction on February 28, and at least 5,000 units are expected to be built in 1953.

baths and year-round air conditioning. Bergton spoke as a member of a

home sales panel, which also included George Olasin and Rowland Harden, Camden realty men; David Zibman, Philadelphia public relations counsel, and Edward Stewart, mayor of Pennsauken. N.J. Harold D. Sarshik, vice president of the league, acted as moderator.





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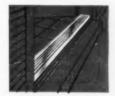
The features above are typical of the many "two-way" aluminum advantages that benefit both builder and buyer. Aluminum's strength, light weight, long

life, attractive appearance, low cost, availability, ease of fabrication with regular carpenter tools—these and other aluminum advantages are found in special designs and in standard products.

Remember—for help on your building material problems, call your nearby Reynolds Architectural Distributor listed under "Aluminum" in the classified telephone directory. For more information on the many uses and advantages of architectural aluminum in home construction, write Reynolds Metals Company, 2530 South Third Street, Louisville 1, Kentucky.



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Better Selling Can Reverse Lower Profit Trend Dealers Are Told

Retail lumber dealers must do a better selling job if they wish to reverse a trend to declining net profits and buck intense outside competition for the consumer dollar. This theme was repeated throughout the recent 69th annual convention of the New Jersey Lumbermen's Association at Atlantic City.

Pointing out that inventory is about normal, volume is holding up well and construction cost is expected to rise, Henry J. Munnerlyn, president of the National Retail Lumber Dealers Association, urged that more consideration be given to repairs and modernization. He stated that he often comes across a house in bad condition, yet notices that the owner has a new car and television.

"I bet no lumber dealer ever called on them," he said; "we have got to do some selling." Munnerlyn suggested making a note of families in dealers' areas who need a new roof, paint, etc., and listing their names in a follow-up system that is bound to bring results.

Other convention speakers included J. L. Wood, assistant treasurer of the Johns-Manville Corporation, Adolph W. Jaeger, retiring president of the association. Elias W. Nuttle, president of the Nuttle Lumber & Coal Co., Denton, Md., and Louis F. Kreyer, president of the Dykes Lumber Co., New York,

Fronk To Head Minneapolis National Home Week

Minneapolis, two time winner in American Builder's National Home Week Contest, has begun its 1953 National Home Week promotion by electing Emil P. Fronk, local home builder, as general chairman of this year's promotional campaign.

Fronk, member of the firm of Mickelson-Fronk, is a past president and past director of the Minneapolis Home Builders Association and an NAHB director.

Other officers of the Minneapolis 1953 promotion include Alvin Kessler, North Central Electrical Industries, vice chairman; Walter Johnson, Minneapolis Mortgage Bankers Association, treasurer; and Larry Nelson, executive vice president of the Minneapolis HBA as secretary and promotional director.

Nine committees have now been set up and are at work preparing plans for the industry's big annual show case of new homes and home products. Tentative dates are for the third week in September, 1953.

Dealer's Viewpoint

H. R. NORTHUP, Executive Vice President, National Retail Lumber Dealers Association

The How-to-Do-It Trade— An Expanding Dealer Market

The Do-lt-Yourself idea, which is as old as the hills, suddenly is gaining prominence as a "new" industry, renamed How-to-Do-lt, for diplomatic reasons.

Several attempts are being made to form How-to-Do-It Institutes to promote the idea on a national scale, and a number of business and consumer magazines have begun to accept it as a major development in our economy.

The reasons why the spotlight is playing so brightly on How-to-Do-lt are twofold. First, a great many individuals have acquired power tools for home and hobby use in the last few years. Second, the hobbyist and week-end carpenter have become relatively more attractive customers to many retail lumber and building materials dealers, now that the demand from other types of outlets no longer is expanding so rapidly.

Many dealers are working hard to promote How-to-Do-lt trade, not just because of the additional sales it creates at the present time, but also because they believe that new homes, garages, and major modernization jobs can be sold later on to customers who get into the habit of coming to their yard for their Howto-Do-It materials.

Promoters of the How-to-Do-It Institutes quote figures showing that as much as 20 per cent of the building products sold by retail lumber dealers go into the do-it-yourself market. Whether or not that figure is approximately accurate, the market unquestionably is an important

However, dealers who want to cash in on the How-to-Do-It trade in a big way have the real problem of giving their customers the necessary instructions. It is one thing for a salesman to tell a customer how to put up a shelf in the basement, but quite another to tell him how to panel a recreation room, enclose a porch, or put up a garage.

Not only must the salesman know how to do the job properly and economically to guard against misleading a good customer, but he also must be able to make his instructions clear to the customer within a reasonable time. Too many half hours spent explaining how to insulate a ceiling can run up a lot of selling expense.

There is a wealth of good instructional material available, and NRLDA intends to find some workable method of making it available to dealers in such a way that they can pass it on to their How-to-Do-It customers at a reasonable cost.

Dealers equipped with a good kit of good How-to-Do-It instructional material can make many new friends in the community and sell a lot of additional lumber and other materials. Having such a kit would seem to be the key to making the most of this growing market.

New Jersey Lumbermen Elect Officers



1953 officers named by New Jersey Lumbermen's Association (l. to r.): G. Bernard Roesler. Hackensack, treasurer; Edward C. Frick, Newark, executive secretary; Adolph W. Jaeger, Union, retiring president; Fred W. Schantz, Long Branch, second vice president; Arthur W. Mason, South River, president; and Aren Kaslander, Verona, first vice president

Young Builders Council Founded in Los Angeles

Believed to be the first group formed to train young people for careers in the home building industry, the Young Builders Council founded by the Home Builders Institute Los Angeles, is now operating as the educational division of the residential construction industry in Los Angeles County. The Council has been hailed as the forerunner of a new national organization.

To launch the organization, a group of 120 from Los Angeles and Orange Counties attended a dinnermeeting and elected the following temporary officers:

The educational programs of the Young Builders Council will be designed to:

1. Assist young people to advance in the industry thereby benefitting themselves and their employers by their increased proficiency.

2. Reduce hazards confronting individuals in the industry with lectures and seminars on the "do's and don'ts."

3. Help those who want to become contractors.

HHFA Head Predicts Interest Rate Boost

Interest rates on federally-approved home loans will probably be boosted within a reasonably short time, HHFA Administrator Albert M. Cole predicted at the fifth annual convention and exposition of the New Jersey Home Builders Association, held April 15-18 in the Hotel Claridge, Atlantic City.

Declaring that no one person could decide the rate problem. Cole said he would want to check with the White House, federal agencies, mortgage groups and bankers before reaching his decision. His statement followed by a day the dropping of all other credit controls on housing.

Retiring president Raymond Hanly stated that the association's certification program to further protect new home purchasers had reached the point where more than 90 per cent of the members had been approved by a state certification committee.

Rudolph A. Matern of the Long Island architectural firm of Matern & York said the trend in today's home is toward modern design, more open planning and, for at least five years, a larger house. He suggested that

(Continued on page 24)



Temporary officers named to complete organization of Young Builders Council (l. to r.): Darrell A. Wright, treasurer; K. Sande Senness, president of Home Builders Institute, the Council's sponsor; Perk H. White, president; William A. Wilson, second vice president; R. Reese Myers, first vice president; Eugene D. Cole, secretary; and (seated) Verle M. Fry, educational director of the Council

sulf a MEMBER Builder

Highlight of Des Moines' recent fifth annual Home Show, attended by over 7.500, was a pictorial exhibit by the sponsors—the Home Builders Association of Des Moines. Pictured in the builders booth are three association officers (l. to r.): William Witter, vice president; L. J. Rothfus, president; and O. G. Grandquist, secretary-treasurer. The show had a record total of 115 exhibits. Chairman O. G. Powell called it the most successful yet to be staged in Iowa's capital city

Des Moines Show

Builders Honor Tufaro



Frank P. Tufaro (second from left), receives a silver scroll plaque commemorating his three years' service as president of the Home Builders Association of Westchester. N. Y., from his successor, Edward A. Lashins. Witnessing the ceremony during the association's annual dinner at Glen Island Casino, New Rochelle, N. Y., are Emanuel M. Spiegel (right), NAHB president, and James E. Cook, dinner chairman

LOUISIANA Dealers Elect 1953 Officers



The annual convention of the Louisiana Building Material Dealers Association held recently in New Orleans resulted in the election of the above officers for 1953 (l. to r.):

R. Needham Ball, executive vice president; Sheiby Hill, first vice president; Harry V. Balcom, president; and Ivan M. Foley, second vice president



NOW - the most complete



FITS-ALL NO. 1 SCREEN DOOR

Adjustable from 18" to 37" between stiles. Made of ala crome, will not rust or tarnish

GRILLE



AY PUSH GRILLE

Use alone or with No. 1 Grille, Will not rust or tarnish. Made for both 32" and 36" doors,



This new 6" high push grille gives even more protection to screens. Will not rust or tarnish.



FITS-ALL NO. 3 SCREEN DOOR

doors with center cross-bar to 29" between stiles.

GRILLE



FITS-ALL

NO. 5 SCREEN DOOR GRILLE



PUSH GRILLE

Just what you need for aluminum doorst Sturdy and ornamental, 16 high—made for 32" and 36" doors.



Nu-ART GRILLE **ORNAMENTS**

Colorful decorations for screen door grilles. Please order separately -ornaments not packed with grilles.



FITS-ALL

NO. 4 SCREEN DOOR GRILLE

Designed for upper section of doors. Will adjust from 191/2" to 34" between stiles.



DEALERS--ORDER NOW! Your order will be shipped

same day received!

BUILDERS-

SOLD AT ALL HARDWARE, LUMBER AND BUILDING SUPPLY DEALERS!

selection of M-D grilles ever offered!

NO. FS SCREEN DOOR GRILLE

Our full-size grille offers complete protection for screen doors. Fully adjustable. Easily installed.



Nu·ART GRILLE ORNAMENTS

Cast aluminum with colorful shadow lines. Not packed with grilles — please order separately.



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Ideal for grilles and other decorative uses. Not packed with grilles — please order separately.



FITS-ALL

\$6 SCREEN DOOR GRILLE

A beautiful new adjustable grille. Like all Fits-All Grilles, will not rust or tarnish.



FITS-ALL

NO. 2 SCREEN DOOR GRILLE

Designed for doors with divided sections, Packed 12 pairs to carton.

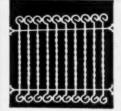






Nu-WAY SCREEN DOOR GRILLE

Sturdy and attractive. Made of ron-black or aluminum finish — fits 30 , 32 , 36 and 42 doors.



MACKLANBURG-DUNCAN CO.

Department Store Sells Out Co-op; Draws 200 Buyers for Next Project

Cooperative housing units priced at \$1,300,000 were sold the first day and a complete project of 299 units was sold out in 41 working days early this year in Gimbel Brothers' Philadelphia department store, nearly four months before construction was scheduled to begin.

Cause of this merchandising bonanza was a 14-story building to go up at 2101 Walnut Street in the Rittenhouse Square section, one of Philadelphia's best-known residential areas



close to its business hub. An FHA Section 213 project, it is sponsored by the Peoples Bond & Mortgage Co. as the city's first cooperative apartment house. Gimbels displayed four model suites ranging from 1½-room "efficiency" to 2-bedroom layouts.

Even more startling, points out David S. Vogels, president of 2101 Cooperative. Inc., the owning corporation, is the fact that "about 200 persons have deposits of \$100 each waiting for the second building... before its site has been selected. They want to be No. 1 on the list. They're afraid they might miss the announcement." Heaviest demand is for the efficiency units which utilize "pullman" kitchens shut off from living rooms by folding doors.

Features encouraging the rapid sale, besides location and price (10 per cent down and monthly carrying charges of \$37 to \$117 including utilities and repairs) included: choice of room decorative treatments, choice of records for bath tile and fixtures, roof recreation area, mail-package room,

garage space in building, television antenna hookup, connections for air conditioners, self-service washers and dryers, storage room for baby carriages, maid service and baby sitting service.

How It Started

Last fall, PB&M decided to sell out the structure before it was built. Vogels, along with company president Maurice R. Massey, won from Arthur Kaufmann, Gimbel executive head, the store's backing and prestige to aid in selling the suites as well as the co-op idea. Then Vogels obtained a contract giving him exclusive rights to display apartments in the store for two years.

First public announcement was limited to Gimbel charge customers, who received a "stuffer" with their December bills about "the greatest newsever in Philadelphia housing." A press preview was held on January 9. Two days later, the Sunday papers carried full page ads. Next day, at the opening, crowds passing through the apartments were estimated to be about 1,000 people an hour.

Twenty \$100 deposits were taken the first hour. Small efficiency units were oversubscribed the first day. Many of the buyers changed their minds during the next few days and obtained refunds, but others were on the list to take their places.

The exhibit, completely furnished by Gimbels, was set up in a space of approximately 150x30 feet at one end of the store's main furniture floor. Posted at the entrance of each suite was an enlarged floor plan; at the entrance of each room, a store price list of its furnishings. Prominently displayed was a large sign giving credit to local subcontractors who helped erect the exhibit. Attractive photo-murals of Philadelphia scenes were displayed on outside wall areas and through windows.

David Lit, sales manager, headed a sales force which kept at least two representatives on hand at all times. In addition, the Fidelity-Philadelphia Trust Co. was represented to help finance down payments. There was no high pressure, traffic being directed through all suites and back to the furniture department so that it could bypass the gantlet of salesmen stationed at a counter near the center of the display.

Names of all persons signing for an apartment were turned over to the store, according to Vogels, which then automatically sent them charge cards "on the theory that anybody who has \$100 to spend was worth taking a chance on as a charge customer."

Does the idea of selling housing units still appeal to Gimbels after this experience? Vogels pointed out that more than 45,000 brochures were passed out to visitors in the models during the first two months and said that the store disposed of large quantities of furniture and furnishings.

And to top it off, just as this was written a much larger cooperative project was announced by other sponsors for New York City. Where do you go if you want to buy a suite? Tenth floor, Gimbels New York.

New Jersey

(Continued from page 21)
when a builder erects three or four
homes in a new development, he make
one quite modern, even if it's the only
one of that type he'll build. Such a
step, he added, would not necessarily
help today's sales but would stimulate
the future market.

Lawrence Hirschbach, vice president of Controlaire, Inc., Fort Lee, N.J., installer of air conditioning equipment, enlivened a panel discussion by listing some problems to be ironed out by this growing industry. He charged that a great deal of mis-



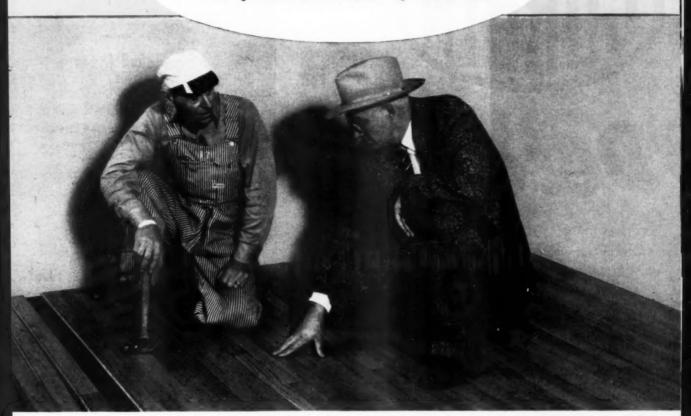
Richard D. Hudson

leading advertising has appeared in home magazines, some of which indicates a price as total cost when it represents equipment only, and some listing a total price when it means installed price, before builder's profit.

Registration exceeded 1,000 at the convention, during which Richard D. Hudson of Montclair was elected president; Lewis Epstein of Clifton, first vice president; Earl R. Simpson of Brigantine, second vice president; Joseph J. Fratantonio of Point Pleasant, treasurer, and Louis V. Bossert of Hamilton Square, secretary, Hudson, president of the Skytop Engineering Co., builds homes in the Montclair area and in Florida.

Emanuel M. Spiegel of New Brunswick, NAHB president was honor guest at the annual banquet.

BEST BUY in Hardwood Floors



PREFINISHED

to cut out troublesome, time-taking sanding and finishing on the job.

PREFINISHED

to reduce floor costs up to \$150 on every home you build.

PREFINISHED

to give owners more beautiful floors with a longer-lasting finish.

For literature and complete data, write

E. L. BRUCE CO., MEMPHIS 1, TENN. See Our Catalog in Sweet's Builder File





The Bruce "Scratch Test"

The famous "Scratch Test" pictured here proves that the Bruce factoryfinish does not scratch, chip or wear away like a surface finish. It lasts years longer because the finish is "in the wood"—not just a thin film on top.

Prefinished Bruce Strip Floors

Nationally advertised—a recognized "Plus Value" that helps sell homes

CORBIN

A new, <u>moderately-priced</u> cylindrical lock for today's buildings!

IT'S THE BIGGEST HARDWARE NEWS OF 1953!

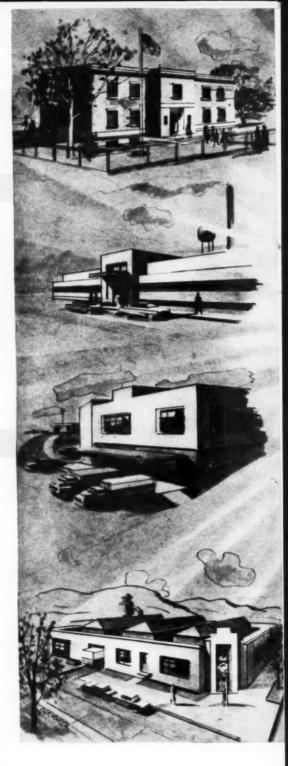
- *Completely new ball bearing operation
- *Easy, fool-proof installation
- *New beauty of design and finish

The Corbin Defender is a major advancement in its class. In its design and construction... in its exclusive features, you will immediately recognize superb engineering and superior materials. Yet it is moderately priced. You can specify the Corbin Defender with the utmost confidence... for light commercial and residential installations where both trouble-free service and economy are required.











- . Time-tested P. & F. Corbin 5-pin tumbler security
- · Master-keying
- Factory assembled
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- · All internal parts zinc-plated, di-chromated steel
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- · Screwless knobs and roses
- · Meets or exceeds Federal specifications
- · Thirteen popular functions
- · One mortise for all functions



P. & F. CORBIN Division
The American Hardware Corporation
New Britain, Connecticut, U.S.A.

Mortgage Pattern Unrealistic NAHB President Charges

Pointing out the unrealistic mortgage pattern as it exists today, Emanuel Spiegel, president of the National Association of Home Builders, spoke out for higher interest rates and longer amortization. His address received an enthusiastic response from the South Bend, Ind., builders to whom he spoke.

Down payments was another subject attacked by the NAHB president. He pointed out the prewar \$6,000



Emanuel M. Spiegel

house had a \$600 down payment. Today, inflation has increased the cost of that house to \$12,000. Yet the down payment is \$2,000 to \$2,500. Down payments are much higher than they need to be, stated Spiegel. His suggestion for realistic down payments was, 10 per cent for the \$12,-000 house, 18 per cent for the \$15,000 range and \$5,000 for houses costing \$25,000.

To keep sales from lagging, the market needs broadening. Higher rates, lower down payments, and a longer amortization period will mean a lower monthly payment. This will sell houses, Spiegel said.

Wholesaler Entertains Dealers, Manufacturers

A smelt dinner, the fifteenth annual affair, was recently held by Hass Wholesale, Inc., of South Bend, Ind., for lumber dealers and manufacturers' representatives.

Four hundred fifty lumber dealers, some from as far as 115 miles away, were treated to the dinner which was prepared by members of the firm.

Principal speakers for the event were Edward G. Gavin, editor of the American Builder, and S. M. Van Kirk, executive secretary of the National Building Material Distributors Association. Ralph Hass of the wholesale firm was master of ceremonies.



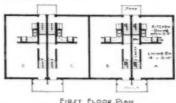
Architects' rendering of proposed four-plex units

Lincoln (Nebr.) Builders Found Company To Erect Low-Rent Units

Recently when the Lincoln. Nebr., home builders defeated public housing they told the city fathers that if any housing was needed they would take care of it. Today sees a "put up or shut up" climax. The city needs 400 additional rental units for an Air Force installation that will move in early in 1954.

Members of the Lincoln NAHB chapter organized a separate corporation, Lincoln Home Builders, Inc., to build the 400 units. They recently purchased a 400-acre tract and will start building the 100 four-plex units. Stock in the new corporation is \$100 a share.

Each of the four-plex units will be tailored to the maximum \$25,000 FHA 203 loan. Each building will be evaluated at \$31,250. Builders and subcontractors will take a portion of their contract in stock.



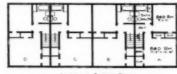
Floor plan of the rental units shows savings in the plumbing layout. Stairwell and

The apartment dwellings will be a one floor plan, one elevation design to effect the greatest savings possible. Variation will be achieved through site placement and color. The builders plan off-street parking and play areas for children at the rear of the apartments.

Plans for "Home Builder's Village" as the project will be called, include schools, parks, and a shopping center. Rentals will be around \$75 per month for a two bedroom unit.

Lincoln Home Builders Association past president Ervin E. Peterson is president and organizational leader of the builders' corporation.

Editor's Note: Does Lincoln have a solution to the large slum rehabilitation problem facing this industry? Will it be called the "Lincoln Plan"?



JECOND FLOOR PLAN

closets will help to reduce noise between the units. Each unit contains 800 square feet



Dignitaries at the Hass Wholesale, Inc., smelt dinner were (l. to r.): Don Moe, Executive Secretary, Michigan Retail Dealers Association, Edward G. Gavin, editor, American Builder, E. F. Boyle, Johns-Manville Corp., Ralph Hass of the wholesale firm, S. M. Van Kirk, Executive Secretary of the National Building Material Distributors Association, Rubin Anderson, Insulite Company, and William Foley, Hass Wholesale, Inc.





now...more builders than ever before can have world famous

Through your demands for more and more Auto-Lok Windows
—you helped build this plant! You and thousands of other builders!

So great has been new demands for Auto-Lok windows,
our old production facilities were taxed to the point where
many builders were not able to buy Auto-Lok windows.

But today, in this new plant, Ludman is now in position to
meet all demands!

Where competition among builders is keenest, Auto-Lok windows have made the difference in changing "For Sale" to "Sold" in sale after sale.

Auto-Lok is the window home buyers—especially women
—want most!

WOOD OR ALUMINUM

LUDMA

Ludman Auto-Lok windows are delivered to your job completely assembled. Installation is easier. No parts to lose! No adjustments to make! They're available in a wide range of sizes to meet every window requirement. And you can get them quick from your local dealer.

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Corporation



UDMAN LEADS THE WORLD IN WINDOW ENGINEERING

The New

CONCEALED-GUIDE SURFACE BOLT

NO. 354

by

ADAMS-RITE



The ultimate in streamlined appearance... and made of solid brass, of course.

This is the new Adams-Rite No. 354 Surface Bolt. It is mounted completely on concealed guides—even the screws are not visible after installation.

Designed especially to blend with contemporary architecture. It is unusually strong, made of solid brass throughout and hand polished. Available in ½" widths and 4", 6" and 8" lengths.

WRITE FOR COMPLETE INFORMATION



SPECIALIZED LOCKS AND BUILDERS' HARDWARE

LETTERS

do you have reprints?

Sir: My attention has been called to the article, "Modular Principles in Roof Construction" (chapter 12— Typical Roof Framing Plans and Methods) by Griffith S. Clark in the December issue of the American Builder.

We think this article is excellent material for our related apprentice classes in carpentry. We are interested in securing 100 copies or reprints of this and other articles of the series, or if reprints are not available may we have your permission to reproduce this for instructional purposes.

We are glad to report that we find the American Builder magazine very helpful for related instructional material in our building trades classes.

Walter L. Thatcher, Principal, San Diego Vocational School

We will not have reprints of the modular series until it is complete. You will be able to get the full series at that time. We have no objection to your copying any of the information that you might need in your instructional program. We do require that a credit line be included.

-The Editor

send to my home last man is out of luck

Sir: . . . As you can see I am having the magazine sent to my home as there is usually such a demand to see it that the last man in the office is out of luck.

I've enjoyed reading it since I have been connected with the home building industry, and have found many helpful ideas in each issue.

Ed Dreier, President, Dreier Inc. Kansas City, Mo.

our house is from the American Builder

Sir:... We might say that for several years we received your magazine through the courtesy of Lockhart Woodworking Company, Ltd., Moncton, New Brunswick and found it to be most interesting and helpful; so much so that our own

home is built from one featured in a 1945 or 1946 issue, which as far as we can remember won 1st prize and was designed by a Canadian architect. You will note the space used as the garage in the original



has been changed in our home to serve as den and office. The picture will probably be of interest to you, although it is not particularly good as it was taken before we had moved in when the landscaping had just begun.

H. J. Phillips, General Contractor, Charlottetown, Prince Edward Island, Can.

requests detail plates

Sir: As a subscriber of your magazine for many years I have become interested in the black detail sheets which appear in each issue. I should be much obliged if you could compile all the sheets issued to date and send them to me. As to the cost all necessary arrangements will be made for the payment.

A. H. Kashdan, Architect,
Tel Aviv, Israel

We are sorry but we have not
made any reprints of the Better Detail Plates, There is no way in which

we can send them to you.

—The Editor

blueprint plans are elaborate

Sir: The longer I am acquainted with the American Builder, the more valuable an aid I find it. It is certainly a fine magazine, brimming with information and new ideas. Especially interesting are the blueprints featured each month. I notice that these plans are more or less elaborate, and that they run in the \$16,000 to \$18,000 bracket. As I build for the average house buyer, I should like to see you feature a plan for a house that would sell

for anywhere from \$12,000 to \$13,-000 or \$13,500. Hope to see it soon. Haig Hudoyan Latham, N.Y.

P.S. Just remembered something; perhaps you could help me. With each house that I put on the market. I offer a one-year guarantee. I have heard that such forms are available. Where might I obtain some?

▶ Our blue print houses are featured to stimulate interest in layout and design. They include ideas that builders can incorporate into the types of houses that they are now building.

You can obtain guarantee forms from the National Association of Home Builders if you are a member. It is one of the many services that they perform for the home builder. You can get additional information by writing Conrad Harness, Public Relations Director, National Association of Home Builders, 1028 Connecticut Ave. N. W., Washington, D. C.

-The Editor

I won't be without it

Sir: At the same time that I am renewing my subscription for the American Builder, for another three years, I will enclose a note to inform you that I am very well pleased with the book. I have been a reader for many years and find it very interesting and helpful in keeping up with the times, both in new material coming on the market, and various ways of doing the work. I would not be without it if it cost twice as much.

J. T. Svaren Hardin, Mont.

find a new place for old razor blades

Sir: There is one idea I do not like to see your magazine promote. It is disposing of old razor blades between the studs in bathroom walls. On two occasions while installing outlets on the opposite side of such a bathroom wall, I have been cut badly. One of the local plumbers had the same thing happen to him. I suggest that the blades be put in a glass piggy bank and the whole thing be disposed of when full.

Bill Hull. Lakeside, Michigan



Quality tests like these make

KENTILE the Asphalt Tile of Enduring Beauty



"This amazing new electronic Color-Eye measures the shade of each Kentile color run to protect uniformity."



"The wear resistance of Kentile is controlled by frequent tests under the artificial "foot" of this Taber Abraser,"

Specifications and Technical Data

INSTALLATION

Can be installed over any smooth, firm interior surface that is free from spring, oil, grease, lumps or foreign matter: metal, wood, plywood, concrete, radiant heated concrete slabs, concrete in contact with the earth, on or below grade.

INSTALLED PRICES

Prices given here are for a minimum area of 1.000 sq. ft, over concrete underfloor. Installed prices range from approximately 20¢ per sq. ft. for ½" Group "A" (darker colors) to 40¢ per sq. ft. for %" Group "D" (lightest marbleized colors). Installed prices vary according to the size of the installation and condition of the underfloors.

THICKNESSES

Standard Kentile is available in two thicknesses: ½" for most residential and commercial uses ... ¼" for industrial uses and wherever extra-heavy duty is expected.

SIZES

Standard tile size is 9" x 9". Other sizes furnished on special order.



"This research chemist is examining a Kentile sample under a binocular microscope, checking surface smoothness,"

KENTILE. INC., 58 Second Ave., Brooklyn 15, New York 350 Fifth Ave., New York 1, N. Y. • 705 Architects Bldg., 17th and Sansom Sts., Philadelphia 3, Pa. • 1211 NBC Bldg., Cleveland 14, Ohio • 900 Peachtree St. N.E., Atlanta 5, Ga. 2020 Walnut St., Kansas City 8, Missouri • 4532 South Kolin Ave., Chicago 32, Illinois • 4501 Santa Fe Ave., Los Angeles 58, Calif. • 452 Statler Bldg., Boston 16, Mass.

KENTILE, INC., Makers of:
KENTILE ASPHALT TILE
SPECIAL (greaseproof) KENTILE
KENCORK FLOORS and WALLS
KENRUBBER TILE FLOORS
KENFLEX VINYL TILE



"Kentile Floors add beauty and luxury to any room...25 colors match any decor. In the room above, colors shown are Languedov and Travertine with Green Feature Strip and Scotty ThemeTile,"



"Easy maintenance over years of use add to the advantages of a low-cost Kentile Floor, Colors shown in the kitchen above are Genoa Green and Gardenia with Yellow Feature Strip and Bronco ThemeTile."

Special Kentile is a greaseproof asphalt tile flooring with extreme resistance to petroleum and cooking greases and oils, alcohols, alkalis and most acid solutions. It can be installed wherever Kentile can be...is available in a wide range of marbleized colors...¹a" and ⁷a" thicknesses. Installed prices range from approximately 40¢ to 50¢ per sq. ft.

For full information on Kentile Flooring for any commercial, industrial or residential use, contact your Kentile, Inc. Flooring Contractor. He's a trained and experienced expert who is always ready to help you with the full benefit of his wide experience. For his name and address look under floors in your Classified Phone Directory.



"This candy factory must be clean at all times yet the floor has to resist greases and oils...stand up under heavy wear. The Special Kentile colors shown here are De Luxe Colors (G-329) and (G-330)."



KENTILĘ

The Asphalt Tile of Enduring Beauty





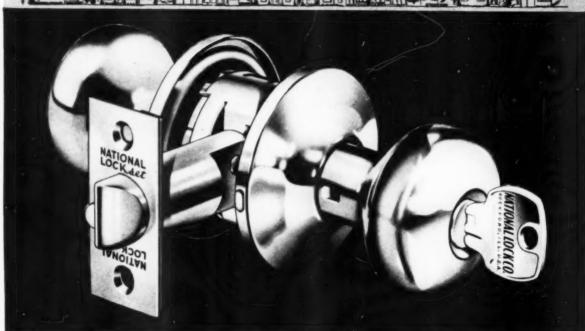
A NEW ADDITION to the "ALL FROM I SOURCE" FAMILY

series

"NATIONAL LOCK SET

Budget-priced Lock...for every home in the block





NEW...LOW PRICED...to meet every competitive situation!

This completely new line of locksets by NATIONAL LOCK opens up the volume market with "class" at a price. Low-cost Series "440" features rugged construction with no zinc die cast materials; appealing beauty accented by an excellent selection of finishes and split finishes; many new mechanical advantages including speed and ease of installation. For all doors in the home.

WRITE US FOR CATALOG OR ASK YOUR SUPPLIER

NOW 2 GREAT LINES NATIONAL LOCK set

series "410"

Superlative Lockset Line for Discriminating People

2 Series "440"
Budget-Priced Lockset
Line for Every Home



NATIONAL LOCK COMPANY

OCKFORD, ILLINOIS . MERCHANT SALES DIVISION



Stub walls of kitchen make possible a continuous ceiling pattern over main living areas of house

AMERICAN BUILDER BLUEPRINT HOUSE

DESIGNER:
Donald J. Scholz, Toledo, Ohio
BUILDER:
Scholz Construction Corporation, Toledo, Ohio

sales figures prove this house to be the fastest selling in town

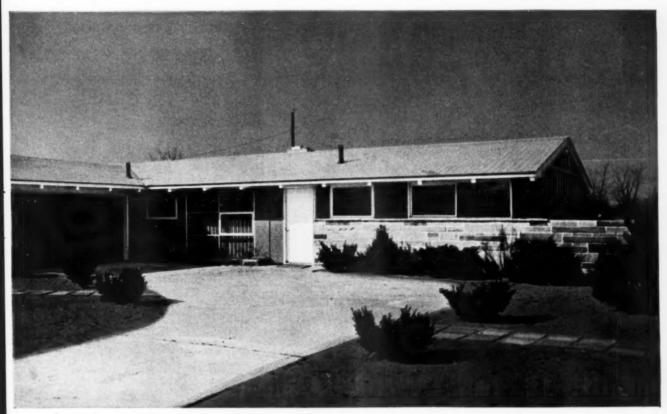
BLUEPRINT HOUSE

Savings in construction costs are attributed to engineered techniques, use of standardized parts and panels that require almost no sawing on the job. So little scrap lumber left, "it can be carried away in a bushel basket."



Glass gable encloses the activities room and the adjoining open porch. Position is opposite wall of the next house and always faces south





The low sweep of the roof line and wide overhangs are fixed characteristics of all the models. In addition the wide lots, big windows

W HEX Builder Scholz introduced the new models of his "California contemporary" type of house to the families of Toledo. Ohio, sales in this conservative area began to climb, and have averaged better than one a day since July of 1952 when the models were displayed for the first time.

Scholz reports that the volume of sales today continues unabated. Advertising is carried in both daily and Sunday papers. This is supplemented by a television program every other Saturday. The result is a traffic jam each Sunday.

Model "B" shown on these pages, is the second of a group developed by this company. This and model "C." which was the blueprint house in the January issue of American Builder, are priced to sell for \$18,950 complete, including landscaping, Model "A" (not shown) is an abbreviation of these two.

There is a continuing effort on the part of the organization to improve the houses as they go along, and at the same time reduce the SS-0"

REPTING REPTING BROWN B

cost of each house, which previously was quoted at 89 per square foot. Up to date several major changes have been made. Radiant heating has been replaced with a perimeter forced hot air system and a downflow furnace. The egg-crate type of double glazed windows in living and dining areas has been replaced with a single double glazed pane 42x76 inches, which extends from floor to ceiling. Through the efforts of this builder with the manufacturer this size was made of two thicknesses of 3/16 inch crystal

glass at a saving of 60 per cent over the regular $\frac{1}{4}$ inch polished plate. The new size will now be added to the manufacturer's regular listing.

This model differs from the others mainly in the position of the activities room and the addition of an open porch. The change is accomplished by extending the garage forward from the front wall of the house but without increasing the square foot area. The position and size of the other rooms follow the pattern established for all models.

The distinct architectural feature of this model is the floor to ceiling glass walls on two sides of the activity room and one wall of the living room. These rooms are arranged to give the impression of one large area, yet with sufficient separation for other types of activity.

In regard to his future operations, Scholz was asked by the American Builder if he felt that he had gone as far as he dared in contemporary architectural design for houses in the Toledo area. He replied that he

MORE



GATEFOLD BLUEPRINT

QUANTITY LIST

OF MATERIALS

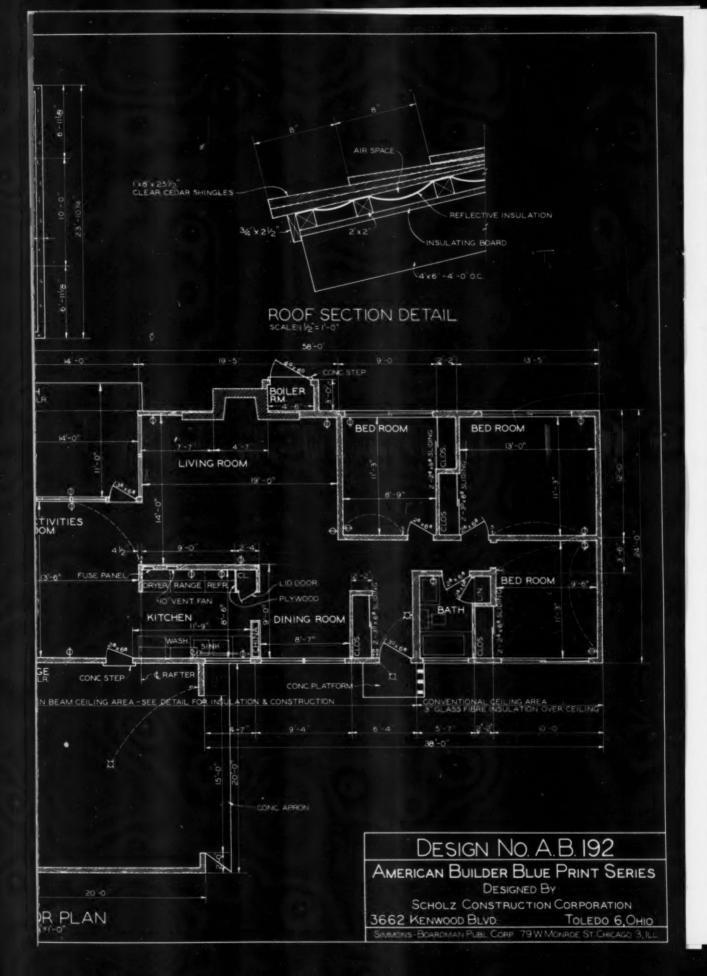
has purchased 260 acres adjoining the present development, where he plans to build houses similar to those in his present project. Roofs in these houses will have a lower pitch and will be covered with a prepared surface with white marble chips. The open roof framing will run parallel with the ridge. A greater expanse of glass will be used with complete elimination of horizontal and

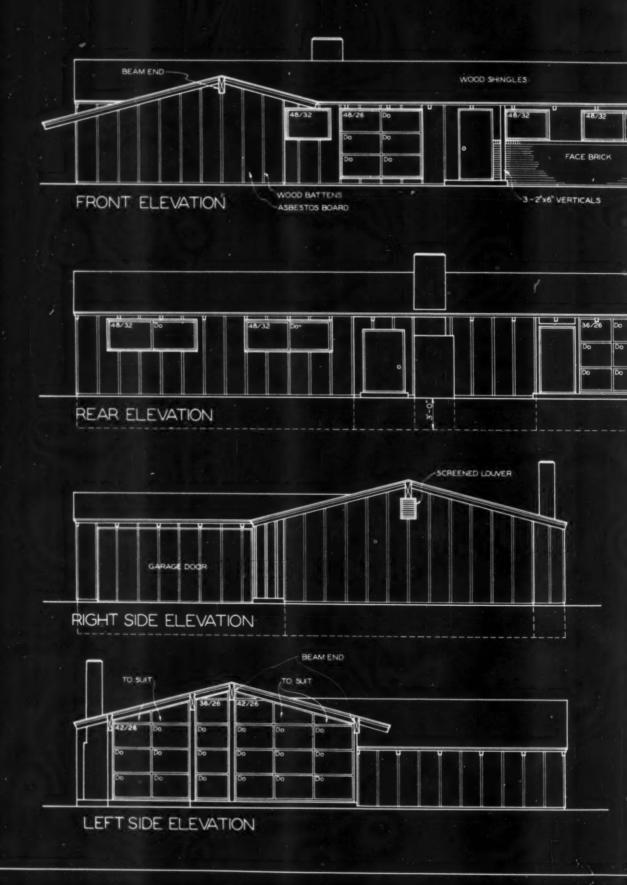
vertical muntins in the frames. Models of this type are

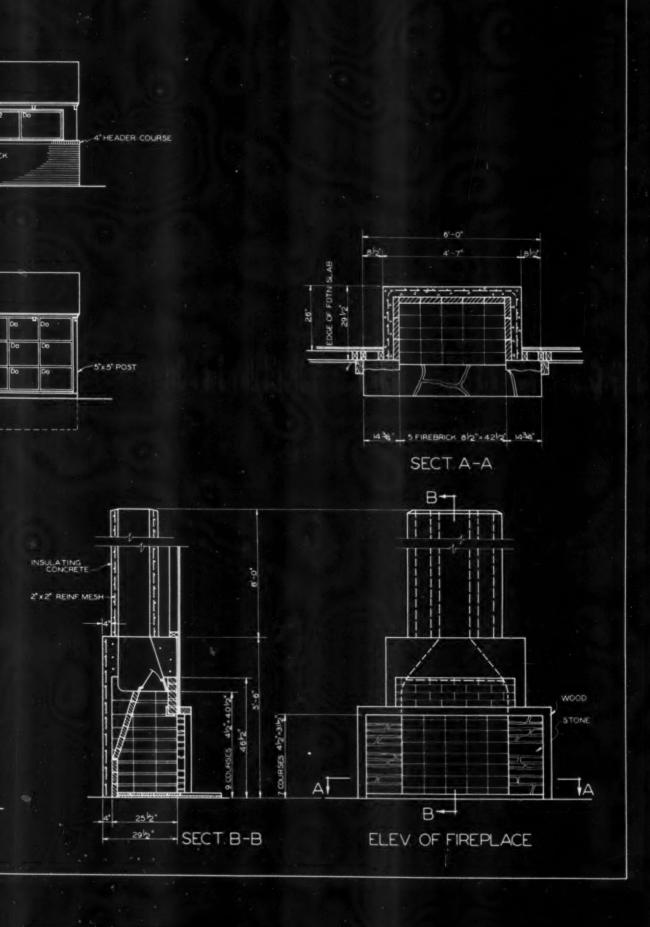
now currently being built in Cleveland, Ohio,

For complete one quarter inch working plans of this house write American Builder Home Plan Service, 30 Church St., New York 7, N. Y.











Quantity List of Materials

For American Builder Blueprint House No. AB 192

Scholz Construction Corporation, Designer

General Information	Special Interior Doors 4 sets of sliding door hardware								
House — Type	Special Interior Millwork Fireplace Mantel, surround china and kitchen cabinets 1 lovatory cabinet								
Garage — Area 400 sq. ft.	Carpentry								
Cube	Beams and Girders								
Porch — Area 170 sq. ft.	1 — 6"x18"x16'0" 1 — 6"x18"x14'0" 1 — 6"x 6"x 8'0"								
Excavating	Foundation Plates								
Trench for foundation	Studding and Plates								
	Ceiling Joist								
Cement Work	Roof Rafters 20 — 4"x6" — 16'0"								
Foundations	40 — 2"x6" — 16'0" 16 — 2"x6" — 18'0"								
Concrete Work	16 — 2 ×6 — 180 16 — 2 ×6 — 10'0" 1,500 lin. ft. 2 ×2"								
Anchor Boits 40 — 1/2 "x10"	Framing Lintels								
Miscellaneous	4 — 6"x 8" — 10 Roof Sheathing 1,265 sq. ft. wood — 1,200 sq. insulation bo								
Masonry	Side Wall Sheathing								
Type brick	Insulating board								
stone reinforced concrete	Side Wall Materials								
Walls	Flooring								
Chimney reinforced concrete	Exterior Material Eaves								
Fireplace 1 Throat and Damper 1 Lintels 1	Porches								
Miscellaneous wire mesh and rods in reinforced	525 sq. ft. 3" fibre glass insulation								
concrete portion of fireplace	Roofing								
Millwork	Type clear cedar shingles								
Windows — Type fixed, sliding & window-walls Material	Area 241/2 squares								
Windows Glazed including trim	Interior Walls								
3 —2 II. 48"x32" sliding 1 window-wall 6 Its. 48"x26" 1 window-wall 9 Its. 36"x26"	Area to be covered 3,070 sq. ft. plasterboard								
1 window-wall 4 its. 36"x26" 1 window-wall 6 its. 42"x26"									

and 2 its. to suit 1 window-wall 9 its. 42"x26"

and 3 lts. to suit

1 — 3'6"x6'8" 1 — 3'0"x6'8" 1 — 2'8"x6'8" 1 — 4'0"x6'0" This quantity list will be subject to variation depending on the common practices in various sections and municipalities of the country, the techniques of individual builders, the types of materials available locally and cost factors. The list published here is a suggested one, complete enough so that it can be used in arriving at a reasonably accurate estimate of the quantities and cost of materials that will be required to complete the structure. It was prepared by experts at the Edward Hines Lumber Co., Chicago.

Exterior Millwork

Exterior Doors - Material

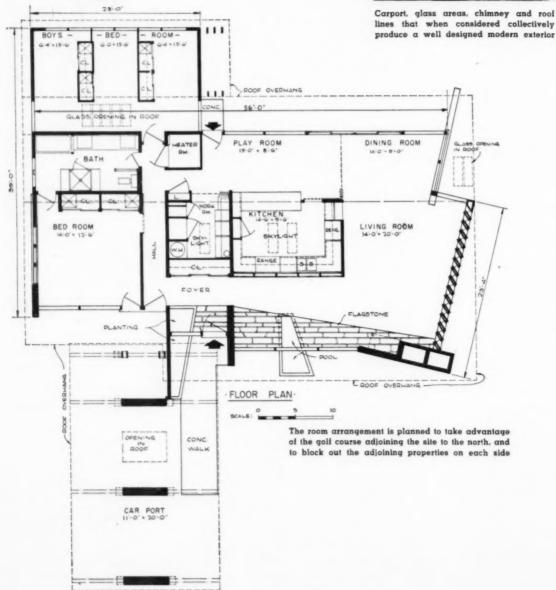
Garage Door 1 — 15'0"x7'0" built-up to match residence

house that provokes forward thinking

ARCHITECT: Simon & Rettberg, Champaign, Ill. BUILDER: B. B. Bunn, Champaign, Ill. Reproduction cost, \$35,000 Land value, \$6,000 Total floor area, 2,360 sq. ft. Cost, \$16.00 per sq. ft.



lines that when considered collectively produce a well designed modern exterior





Section through front wall. Note the use of perforated cement asbestos board on the soffit of roof overhang for ventilation of the roof area

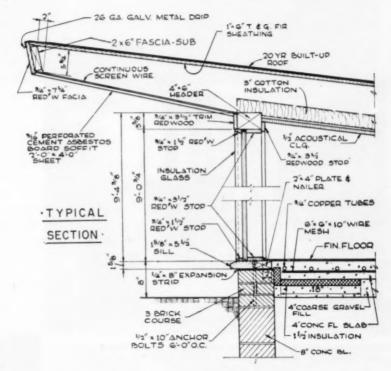
THE dominant feature of this house, and one that has generated much discussion, is the butterfly type of roof design.

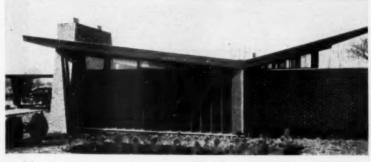
Designed by Robert Simon for his own use, it represents freedom of thought and expression.

While most of the comment about the roof has been favorable, some builders maintain that the shape is all wrong, that a good wind will lift it off its moorings. Also that a large volume of snow will build up in the valley.

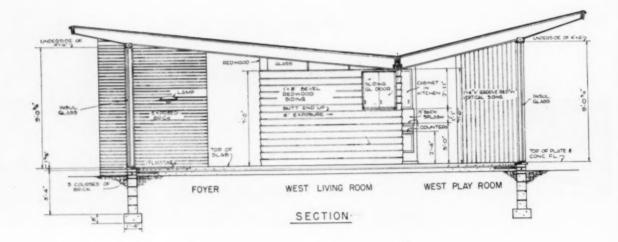
Strangely enough in the two years that the house has been occupied, Simon has found the reverse to be true. The wind as it sweeps across the roof, forms a funnel in the valley and literally removes all the snow from the roof surface. The wind also follows the pitch of the roof overhang in a downsweep movement toward the ground.

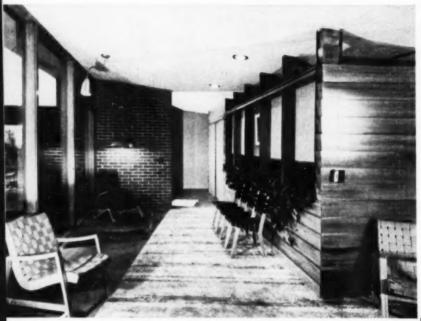
The plan is an expression of the 1953 manner of living. Planter and pool extend both inside and out, with the exterior wall forming the





Side view clearly shows the reverse pitch of roof. Downspout is enclosed in wood pier at right of bank of vertical glass units





View in living room toward entrance hall. Note the use of redwood siding with butt end up on the two exposed kitchen walls. Planter continues through wall to the outside

MANDEANY DOUDS

METAL LINES (LINES BONES

BEVEL DEDIVIDOD SOMES

NORTH FOYER WALL

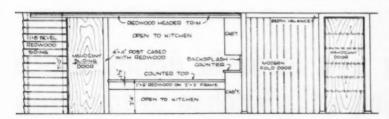
division. Children's playroom is made adjacent to, and part of the kitchen, dining, and living area where constant supervision can be maintained easily. Kitchen and utility rooms are placed in the center, thus permitting the periphery of the house to be used for the placement of major rooms. Basically the house has only two bedrooms. One bedroom, however, is divided into three parts with storage closets used as the separating units. Bathroom is designed for dual use.



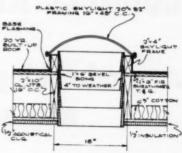
AMERICAN BUILDER



View in living room from dining area. Exterior wall at left consists of a series of vertical panels glazed with amber colored cathedral glass, which diffuses the east light and blots out the view of the adjoining house



SOUTH PLAY ROOM WALL.



SKYLIGHT DOME DETAIL



Master bedroom. Brick wall is of cavity type with 2-inch air space



Kitchen is separated from playroom by long counter



CORNELL KITCHEN . . .

. . . refreshing new ideas in design which may shape the kitchen of tomorrow

Refreshing food for thought in the future development of kitchens, patterned after the desire of American housewives for the utmost in convenience and comfort, comes from the Housing Research Center of Cornell University after six years' of study in hundreds of homes as well as industry-aided research on the campus.

A bold departure from custom, the Cornell Kitchen does away with the thinking that all counter top must be streamlined, or of the same height. It recognizes that women not only find their most comfortable working level to be from 32 to 38 inches above the floor, depending on their height and arm length, but also that all kitchen tasks are not performed most efficiently at one counter height.

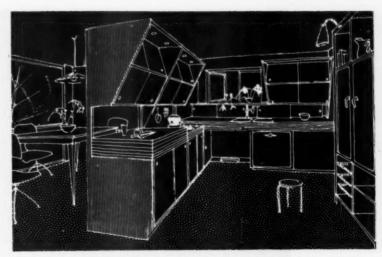
It supports the belief that each food item, utensil and appliance should be stored near the point of first use. Just as firmly, it realizes that no one can tell a woman where to put things. Every housewife has her own ideas on the subject, so the Cornell Kitchen makes it possible for her to rearrange her kitchen quickly, in almost every conceivable way.

Thus, the studies have fashioned a kitchen standardized to permit mass production, combining the best practical use with maximum comfort of operation and yet allowing extreme flexibility to satisfy the particular requirements and whims of any housewife.

To achieve this, the complete Cornell Kitchen comprises five sections or centers: sink, mix, range, oven-refrigerator and serve. All five can be grouped to make up a deluxetype, spacious room or fitted into an area as small as 8x12 feet.

Each section is built on the 24inch module. All drawers, shelves, trays and lapboards slide and are removable from the cabinets. These may be interchanged in many ways within any one of the five units or from one unit to another.

Glenn H. Beyer, professor of housing and design at the Ithaca,



Four of the five units are sketched in this compact kitchen

New York institution and director of its Housing Research Center, conducted the study, as a part of New York State and federal projects investigating farmhouse storage facilities. It all began with an extensive survey of 600 owner-operated farm homes in 12 states from Maine to West Virginia, to obtain statistics representative of more than 100,000 families. Every kitchen product these families had in kitchens, pantries and basements was listed, as well as the space required by each.

In plotting the new kitchen, said Beyer, "we forgot we had ever seen a conventional kitchen and analyzed everything. The list of materials was adjusted through a consensus of what everybody has or should have. Years of study went into the amount of counter top or surface work space needed, how much storage space should be available, what equipment should be used and where it should be placed."

Then Frank Weise, Philadephia architect, was named to assist the Center in cabinet design and a mock-up kitchen was built in a Cornell research building. By this time, the feeling was evident that the new kitchen design was applicable to all types of homes; not to farm alone.

"Big business" lent an important hand. Among major co-operators were Reynolds Metals Co., supplying sheet aluminum and working on metal structures; General Electric Co., assisting in refrigerator design and adapting some apartment-size refrigerators for use; Monsanto Chemical Co., designing and producing in plastics such small auxiliary units as bread and cake boxes, flour and sugar compartments; Sears, Roebuck & Co., advising in production and marketing problems, and Cooperative GLF Exchange, Inc., testing early units in members' homes.

Women of the New York State College of Agriculture at Cornell and local women's groups were invited to use the kitchen at periodic intervals. Their movements were studied for clues to better kitchen conditions and opinions noted as to how they liked the convenience and ease of working provided by certain features.

The university has obtained patents pending on the kitchen and has just published an elaborate bulletin explaining its construction in detail. When this issue went to press, it was preparing to license manufacturers. Meanwhile, the research enters a last stage with construction of the finished kitchen at Cornell and placement of several complete and partial sets in private homes for observation under actual living conditions. From these tests, final design revisions will be made.

These units, declares Professor Beyer in the bulletin, "are not presented under the pretext that they represent either the ultimate or the ideal. We do believe, however, that they represent a step forward in the concept of kitchen planning."

Descriptions of the five work centers, new ideas in cabinet assembly and packaging advantages appear on succeeding pages.

POTENTIAL ADVANTAGES

for the housewife:

Convenient place for everything—her place. Reaching, stooping and walking minimized.

for the owner:

Wide variety of changes always at his disposal.

for the manufacturer:

Mass production, without regard to varying counter heights.

for the big operative builder:

Buying in large quantities without concern as to what counter heights will be wanted by buyers; lower shipping and storage charges.

for the small builder:

Quick assembly; one-man installation.

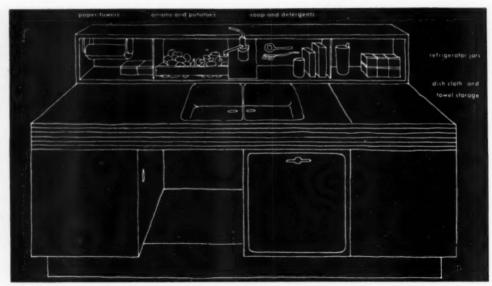
for the remodeler:

Possible uneven floors or wall out of plumb pose no problem in old houses.

for the renter:

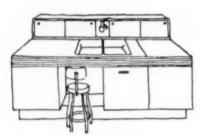
Free-standing units can go with him when he moves.

CORNELL

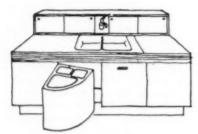


Sliding doors of bins are removed to show storage. Upper cabinets can be used where rear wall has no windows

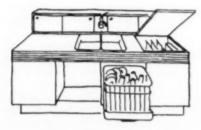
sink center



Sitting space



Refuse containers



Dishwasher, towel storage

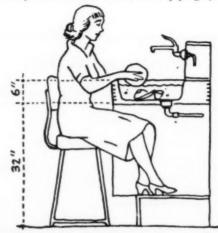
The one-piece counter top is integrally colored and made either of sheet steel with a high temperature-fused mineral surface and bonded to plywood of jointless construction, or of molded die-formed plastic.

A double or single sink bowl is a part of the counter top, which is sloped slightly to drain water into it.

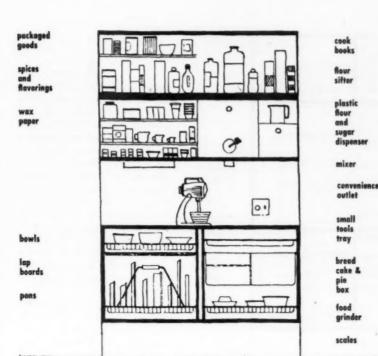
Across the back are sliding-door storage bins designed for fruit and vegetables which keep well at room temperature; also for soap and detergents, canned and packaged foods, paper towels and small utensils. Hot and cold water faucets and a water spray are an integral part of the storage bin construction.

Under the counter is a swing-out compartment operated by a spring-release catch, containing three separate and removable steel or plastic receptacles for waste paper, garbage and tin cans. When closed, the compartment is sealed off from insects. Space beneath sink bowls is open except for a base foot rest. Other under-counter space is for an electric dishwasher, racks for dish towels and shelf storage for dishpans. A chair is provided.

All water and drain piping is built-in and terminated with unions for easy attachment to the domestic piping system.



High counter top, shallow bowl and footrest combine to permit comfortable sitting position



mix center

U PPER cabinets have a builtin flour and sugar bin, easily removed for cleaning and maintenance. The flour compartment contains a sifter, tilts forward to permit loading, and is designed to hold 25 pounds of flour. A shelf for a hand sifter adjoins it. The sugar compartment also tilts forward, is large enough to hold 10 pounds of sugar. Entire construction is of molded plastic or sheet metal with baked enamel finish.

The base cabinet includes a bread and cake box of the same plastic or sheet metal construction, which slides out on the same device used for pull-out travs. Horizontal and vertical partitions, some movable, divide the box to facilitate storage of pie, cake and at least four loaves of bread. The box is removable for cleaning.

range center

tools

cereal

electric

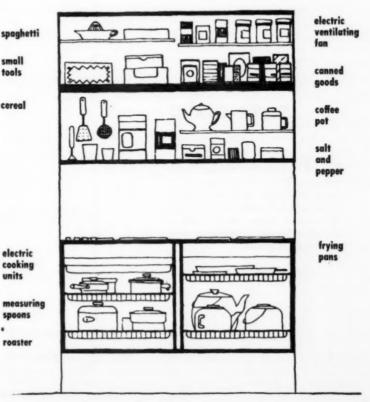
cooking units

spoons

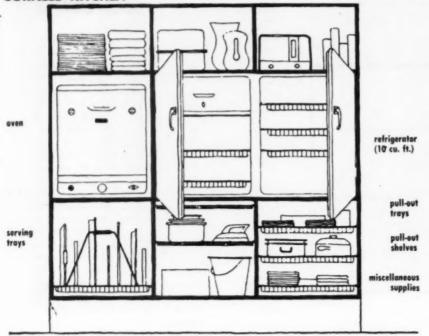
roaster

Four electric burners and their controls are set into the onepiece counter top, the burners being flush with the surface. Two removable grease pans are installed below the burners. The base cabinet contains trays for measuring spoons and cooking utensils.

Wiring is built-in, complete with 220-volt range outlet for connection with the household wiring.



CORNELL KITCHEN



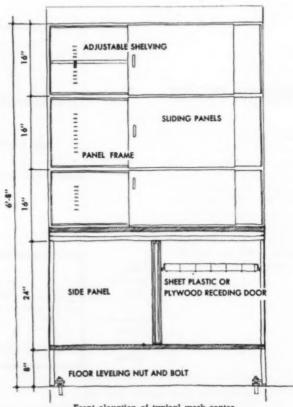
oven-refrigerator center

NEWLY designed horizontal refrigerator and an electric oven are placed in this unit at waist level. The 10-cubic-foot refrigerator is a single, metal-clad and insulated chamber with two hinged or sliding doors. Recessed shelves are on the inside of hinged doors. It also contains a freeze chest, ice cube unit and meat and vegetable keeper. All inside trays are pull-out welded-wire units. The refrigerator is supported on adjustable shelves sectionalized into the structure at the comfortable height for the housewife.

The oven of proprietary manufacture, also fits into the work center structure at the desired height. Wiring for both appliances is built into the back panels of the center and each is plugged into receptacles built at the point of manufacture.

serve center

HIS unit is a standard cabinet providing storage space for china, glassware, table linen, etc. It is an optional center, which might be omitted where other facilities provide sufficient storage space or if floor area is limited.



Front elevation of typical work center

flexibility

SHELF BRACKETS

SHELF BRACKETS

FUSED-MINERAL SURFACE COUNTER TOP

METAL VERTICAL SPACERS

PULL-OUT WELDED WIRE TRAY

FORMED LOUVRES

EXTRUDED TEE FRAME

Section through work center

B ASED on a 24-inch module, the mix, serve and range centers are 48 inches wide, sink center 96 inches and oven-refrigerator unit 72 inches. Each center is complete in itself and free-standing. The set of five units can be transposed at will into any desired floor arrangement. Since base cabinets in all but the sink center are identical, the inner components are completely interchangeable.

Height of all base cabinets can be adjusted as much as six inches to provide the most convenient working surface level by use of vertical spacers. These are interlocking metal spacers which fit between the counter top and the base cabinet. Heights may be readjusted at any time without disturbing adjoining cabinets. A special metal spline interlocks with the spacers to seal the edge of the counter top.

Based on its surveys and observations, Cornell suggests the following counter heights as the most comfortable for a woman of average height:

Mix center: 32 inches—hands are usually working over bowls, mixing machines, etc., several inches above the top.

Sink center: 38 inches (hands are working on the level), with the sink bowl only six inches deep.

Range center: 34-36 inches—frying pan and pot handles are usually two to four inches above the work surface.

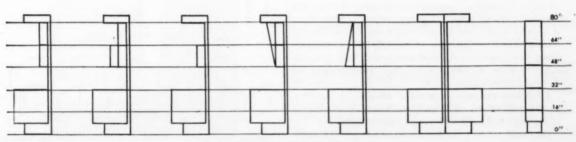
The serve center can be higher, for the worker's hands are usually at worktop level.

Pull-out trays and drawers are used throughout in base cabinets to increase visibility and ease in reaching contents. The trays are designed to clip into perforations on the insides of the units. Thus they may be spaced at different heights to accommodate pots, pans and other equipment.

Two sizes of tapered upper cabinets are also interchangeable in any of four work centers. The cabinets can be inverted and formed in many styles to meet varying space requirements. Sliding doors and shelves are also interchangeable.

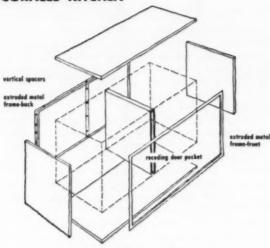
Both upper and base cabinets are demountable wherever used.

Complete color flexibility is also possible. Flat pieces in work centers may be planned in a variety of prefinished colors or natural finish. Since panels are all of standard size, they may be replaced whenever a change is desired.



Some typical groupings of storage units

CORNELL KITCHEN



packaging and assembly

Base cabinet assembly

Component parts are flat and fit compactly in a crate, which keeps down the amount of air space to be shipped and stored and, accordingly, cut costs. Each work center has standardized parts, simplifying installation.

Generally, basic component parts of each unit include a C-frame, lighting valance, base and upper cabinets.

C-frames support both base and upper cabinets, provide a means for mounting overhead strip or spot lighting and include necessary wiring and attachments.

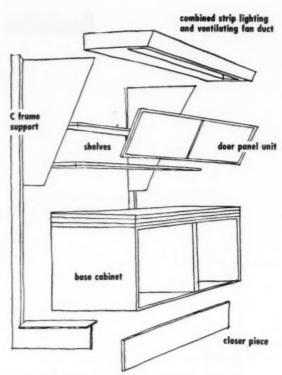
Base cabinets include a receding drawer assembly and trays, made of metal, wood, wood products or plastic, which operate on sliding devices. The assembly is fitted into the cabinets which are attached to stationary bushings and snaps into slotted louvres on the cabinet side.

Receding doors for base cabinets are contained in a sealed cartridge which also supports the counter top. To close the cabinet, the doors are pulled out of the cartridge, on grooved metal or wooden slides, until stopped at the front end of the cartridge; then they are swung to shut off the cabinet. This permits the housewife to leave cabinets open when working at a center, without having any doors get in her way.

Upper cabinets have adjustable shelves with widths of six to 12 inches, supported by brackets inserted into regularly spaced slots in the cabinet back. Slots make it possible to relocate the shelves at any desired height. Sliding doors can be made of such materials as aluminum, glass, plastic or finished hardboard. Base of upper cabinets is set 48 inches above floor level, making all shelves easy to reach.

Lighting valance includes a recessed or surfacemounted lighting fixture, wiring and devices to attach it to surfaces and cabinets of adjoining centers.

All work centers are independent of existing walls for support. Free-standing and thus not an integral

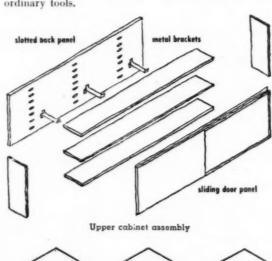


Exploded view of basic structural components

part of the house, any unit could be picked up and taken along when the family moves to another dwelliing.

Each unit has a floor-leveling nut and bolt arrangement, so that it can be installed quickly, even when settling may have caused uneven floor or wall conditions.

One-man installation is possible, since all components except refrigerator and oven, are light in weight. All parts are pre-cut and marked to facilitate assembly with ordinary tools.



A M

Cabinet doors swing to center, then slide in cartridge, leaving cabinet open with no doors in the way

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is only as good as its
parts





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Fir PLYWOOD subflooring can be applied in less than half the time required for lumber. Big panels cover large areas quickly . . . fit standard joist spacing without wasteful cutting and fitting.

Plywood subfloors are solid. Won't cup, squeak, swell or shrink... protect against drafts and air infiltration. Rigid plate-like action gives added protection against windstorms or earthquakes.

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*PlyScard is the economical unsanded construction grade of Interior-type fir plywood. Glue is highly water-resistant (but not waterproof) and will withstand occasional wetting on the job.



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Tile, linoleum or wall-to-wall carpeting lays flat, stays flat over smooth, flat fir plywood. Large, smooth panels do away with "humps" and ridges which mar beauty, offer points of wear.

Fir plywood underlay cuts costs, too. Saves time and labor. No felt needed; coverings can be placed directly on the plywood. No pre-drilling or special fastenings needed with plywood underlayment.

Specify PlyPanel for Underlay

"PtyPanel is the versatile "one-side" grade of Interior-type fir plywood. For underlayment, far paneling, cabinet work and other indoor jobs where only one smooth side is required.



3. Plywood combined

HERE's a real cost-cutter. Use a single thickness of fir plywood for both subfloor and underlay. Because plywood gives great structural strength plus smooth, flat surface, you save two ways: you save on materials, you save on labor.

Combined subfloor-underlay of fir plywood gives entirely adequate construction for any finish floor including tile, linoleum or carpeting.

Specify PlyPanel for Subfloor-Underlay

*PtyPanel is the versatile "one-side" grade of Interior-type fir plywood. Use it for combined subfloor-underlay, for paneling, cabinet work, and other indoor uses where only one smooth side is required.

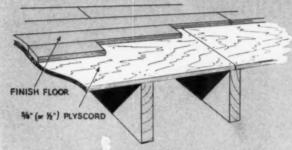






Always look for these registered industry trademarks—your guide, guard and assurance of DFPA quality-tested fir plywood. For detailed specification data write (USA only) Douglas Fir Plywood Association, Tacoma 2, Washington for 1953 Basic Catalog.

go down fast, cut labor costs in half

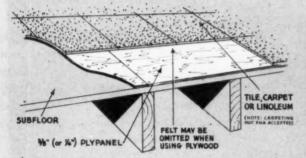


APPLICATION: Apply with face grain across joists. Usual installation is over joists 16" a.c., but spacing up to 24" a.c. satisfactory with 25/32" strip flooring. Use 8d com. nails for 5/8" plywood, 6d for 1/2"; nail 6" a.c. at panel edges, 10" a.c. an other bearings.



faster floor construction

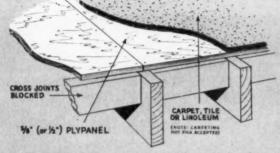
makes floor coverings look better, last longer



APPLICATION: Preferable to place panels with face grain running across joists, breaking joints over joists. Nail approximately 6" a.c. an panel edges, 8-10" a.c. elsewhere. Ringed nails hald better.

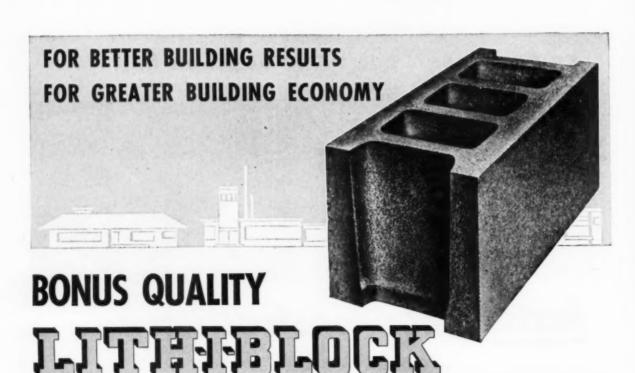


subfloor-underlay gives really big savings



APPLICATION: Apply panels and nail as for subflooring above. Note blocking along panel edges at right angles to joists.





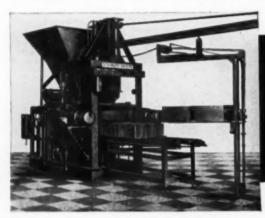
When you're fighting costs and aiming for quality, Lith-I-Block is the best friend you can have on any job. This Prince-among-block squeezes out those extra pennies that insure your profit . . . and it pays dividends in building quality that cannot be achieved any other way.

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and creates the kind of client satisfaction that helps your business grow.

Another Lith-I-Block bonus that will pay you many times over is its rock-like internal strength. No matter what size of block you need... or what type of block you need, the exclusive Lith-I-Block manufacturing process produces block that are always of the same superb quality, through and through. The wall you build of Lith-I-Block is there for life.

To take advantage of the economy and quality that are a part of every Lith-I-Block unit, write for the name of your nearby Lith-I-Block producer. The superiority of his block is yours at the standard prices for your territory.



LITH-I-BLOCK

is manufactured to rigid standards on machines manufactured by the

LITH-I-BAR COMPANY

HOLLAND, MICHIGAN

for beauty
that keeps
its shape...

Choose the door

When you choose hollow-core flush doors, be sure of customer satisfaction. Look up to the "backbone"—the core. Only in the "Curtis New Londoner" do you have the locked-in, all-wood engineered core that assures dimensional stability-for a lifetime. Every Curtis New Londoner door is one completely joined unit-nothing to "float" or get out of place-with 3-ply faces securely bonded to all parts of the core. Owners will praise you for selecting these doors that don't stick, warp or sag!

"Curtis New Londoner" hollow-core flush doors are made of choice veneers in birch, maple, oak and other woods. For exterior use, the hollow-core flush doors and Curtis American solid-core doors provide a wide selection of interesting light openings. Here are some popular choices.

with the engineered backbone

4,000,000 successful installations have proved that "Curtis New Londoner" hollow-core flush door construction assures lasting freedom from faulty door performance. No other flush door offers so many built-in advantages as the "Curtis New Londoner."



NEW LONDONER
HOLLOW-CORE
FLUSH DOORS

Curtis also manufactures the famous "American" solid-core flush door with kiln-dried core. Face panels are phenolic bonded. Available in extra widths for school, hospital and institutional use.

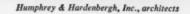
For complete information, see "Curtis New Londoner" section in SWEET'S Architectural Catalog—or mail the coupon.

Curtis Companies Service Bureau AB-6 Curtis Building Clinton, Iowa

I want to know more about Curtis New Londoner and Curtis American flush doors.

Name....





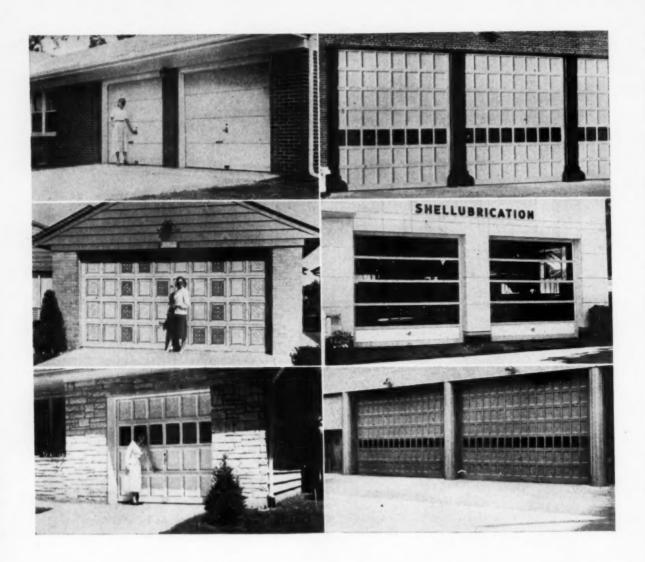
Perfect link to outdoor living

WHERE NATURE'S BEAUTY makes a perfect meeting with a well-planned interior, you'll find Andersen WINDO-WALLS. In this home, Andersen Gliding Window Units, with transoms of Andersen Flexivent Windows, open the home to lovely wooded surroundings. Yet they place a transparent wall between the owner and uncomfortable weather. They are both windows and walls-the ideal meeting point for indoor and outdoor living.

Andersen Corporation

WINDOW SPECIALISTS FOR 50 YEARS

For specification data see your millwork dealer, Sweet's Light Construction File or write Andersen Corporation.



RAYNOR DOORS present an All Star line-up of Wood Sectional Overhead Doors

Regardless of the size opening—you can depend on the Raynor Mfg. Co. to supply you with a wood sectional overhead door of the finest quality and design.

Raynor sections embody three-way stress construction (mortised and tenoned, steel dowelled and glued), and all Raynor hardware is "protecto dipped" or cadmium plated for complete weather protection.

When you combine these important features with Raynor co-ordinated construction (hardware and wood sections are built complete in the Raynor plant) it is understandable how consistently Raynor fulfills its pledge of top door quality.

Whether it is a residential, commercial or industrial door you can assure the Raynor door owner of precision finger tip control at all times, thanks to Raynor Graduated Seal, made possible by the patented Raynor universal graduated hinge.

For door installations that demand something really different, Raynor Carved Raised Panels and Flush Doors are unequalled in originality.



Contact your local Raynor representative or write direct for complete details and colored literature on the Raynor "complete line of wood sectional overhead doors."

RAYNOR MFG. CO.,

Dixon, Illinois



DISCHARGE IS FAST OR SLOW,

depending on how you want it. Hydraulic controls make this possible. Mid-section pivot of loader arms give longer reach in dumping position.

STRIPPING TOP SOIL

is another job this versatile unit does well. The simple rugged design of the Ware loader correctly distributes weight on tractor frame, regardless of the operation being performed. Down-pressure can be applied when it is necessary in tough digging. Hydraulic rams absorb shock loads...mean longer life and lower maintenance for both tractor and loader.

HYDRAULICALLY CONTROLLED BUCKET

assures greater "breaking-out" action full bucket loads every time. 28° roll back helps prevent wasteful spillage,

Picture Your Profits..

with this

OLIVER Hydraulic Tractor-Loader

An Oliver Industrial Wheel Tractor with this all-hydraulic frontend loader is a combination that's hard to beat for low-cost, profitable operation. With any Oliver Wheel Tractor, you get famous Oliver dependable plus power, easy maneuverability, rugged construction. With the loader, manufactured exclusively for Oliver Wheel Tractors by Ware Machine Works, you get completely hydraulic operation which means easier, surer control for more efficient digging and loading.

Take a look at the "profit pictures" shown here. They'll convince you that it's well worthwhile to ask your Oliver Industrial Distributor to arrange a demonstration of an Oliver tractor-loader combination for you.

THE OLIVER CORPORATION

400 West Madison Street, Chicago 6, Illinois





A complete line of industrial wheel

and crawler tractors



WITH TRUSCON RANCH WINDOWS

69 of these attractive modern one-floor homes featuring Truscon Ranch Windows are being built in Cleveland, Ohio. Called the "Westerner," this picturewindowed three bedroom model is selling mighty fast. More "Westerners" are planned for early starts.

Truscon Ranch Windows are handsomely styled in steel especially for one story ranch types. They are equally adaptable to all residential construction reflecting modern architectural trends.

In larger sizes, they provide attractive living-room picture windows which minimize the "wide open" effect so characteristic of large undivided glass areas. Medium size units conveniently fit window openings for dining rooms, dens,

libraries. Smaller units are admirably suited to sleeping rooms.

All Truscon Ranch Window sizes may be fitted with double insulating glass. Vertical sliding wicket screens are available. You'll find more details and specifications on Ranch Windows and other Truscon residential building products in Sweet's; or, write us for latest bulletins.

TRUSCON STEEL DIVISION

REPUBLIC STEEL CORPORATION
1050 ALBERT STREET . YOUNGSTOWN 1, OHIO

Truscon Steel Ranch Windows and Residential Casements are features of the Westerner, designed and built by Bruscine-Fischer, Inc., Lakewood, Obio.

TRUSCON®

PRODUCTS

a name you can build on



a great selling tool for new homes, furnishings, remodeling

No community is too large or too small to have a National Home Month program. All it takes is a strong local cooperating group

BUILDERS + RETAILERS + NEWSPAPER



SEPTEMBER is the month when public attention across the country will be centered on home planning and building, home furnishing and remodeling. September is National Home Month—an extended observance of the famous National Home Week idea fathered by American Builder's editor, Edward G. Gavin, in 1948.

In the five years since its inception, the National Home Week idea has proved to be the most potent sales builder the light construction industry has ever had. Last year, an estimated 3,400 demonstration homes were shown in Home Week promotions organized by local NAHB chapters in over 60 key cities. Direct sales were estimated at 11,200 houses. An unestimated additional number of houses were shown by industrial retail lumber dealers and builders in communities not served by NAHB chapters.

Last year, too, it began to be clear that National Home Week was growing out of the confines of a week. Chicago, for instance, had from the start exhibited demonstration houses with great success for a span of three weeks, including four week-ends. On Long Island, promotion of the Home Week exhibits starts two weeks in advance, and

extends beyond the period of announced exhibits. Here several weeks are used, although official exhibit time is one week.

In several cities, established local events conflicted with National Home Week and some other week in September had to be taken. Many small builders not operating in areas served by NAHB chapters choose a week other than the official one, although in September. Retail lumber dealers, too, have interpreted the dates of the official week freely, for perfectly good local reasons.

Then take the case of the model house furnished especially for the Home Week occasion by a cooperating furniture retailer. In many an instance, especially if bad weather cuts into the week, the furnisher can hardly feel that the short time of exhibition has justified his trouble and expense. Since the furnished model house is still the best single device for selling houses, its place in the National Home celebration deserves every consideration.

For these reasons, and others, the American Builder has recognized that National Home Month is now a far more realistic designation than National Home Week.

So in 1953, for the first time, National Home Month is the banner which flies over the far-flung demonstrations of new homes which the American public expects to see and visit during the month of September.

In launching National Home Month we emphasize that every community participating does not have to use the entire month, or even an entire week. Any period of time in the month that seems adequate to meet local needs and resources is sufficient.

The National Association of Home Builders in 1953 will continue officially to promote a National Home Week (Sept. 20-27) through its affiliated chapters. This Week thus is an all-important part of the over-all activity of National Home Month.

To publicize National Home Month to millions of prospective home buyers who are not reached by industry promotion channels, Better Homes & Gardens is adding the weight of its prestige and circulation. Its Readers' Choice house is being built by 50-some builders in as many communities and will be featured in its September issue as a National Home Month venture.

Other consumer media with national coverage are expected to join in promoting National Home Month in 1954.



How Chicago makes a Week a Month

With the appearance of National Home Month, the Chicago experience in staging new home demonstrations which last nearly a month becomes a model from which other communities can benefit.

Last year, the Chicagoland Home and Home Furnishings Festival lasted from September 14 through October 5. Builders offered 92 model houses scattered through all sections of the metropolitan area, in all price classes. Forty-seven of the houses were completely furnished either by the builder or by cooperating decorators and manufacturers. The festival houses were visited by 1,300,000 persons and about 3,000 actual sales were made during the period.

Lesson No. 1 of the Chicago pattern is this: a successful National Home Month program that is to run for several weeks must be based upon a strong cooperating group consisting of builders and retailers plus the support of a newspaper willing and able to realize the great advertising sales potential in such a tie-up. The Chicagoland Homes Festival is the result of close cooperation between the Home and Home Furnishings Council of Chicagoland and the Chicago Tribune. The Chicago Metropolitan Home Builders Association is a member of the Council.

Organized to integrate the various local trade groups concerned with the home and what goes into it, the Council works hand in glove with the Tribune in planning each year's demonstration of new homes. The procedure shapes up as follows:

 Each year the Council invites builders to enter the Festival, including those who have participated before.

(2) The Council is the judge on the final list of builders to be included. When this list is closed it is sent to retailer members of the Council who then select those houses which they will furnish.

(3) All participants agree to ob-

serve a code of ethics covering hours the houses shall be kept open, staffing of them, signs used, landscaping, etc.

(4) The builders send to the newspaper lists of the appliances, equipment and materials being used in the houses. They also must furnish a sketch of the house in perspective.

(5) On the opening Sunday, the newspaper publishes a 50-60 page supplement given over to every phase of home planning, building and furnishing. The supplement has four sections, so that the advertising is departmentalized. Also, the supplement is

published in five separate editions—each zoned for circulation in one of the five neighborhood areas of which the city is composed.

(6) In the weeks following the supplement, the newspaper publishes running news on the Festival, and publicizes it over radio and television but does not again bring out a special section devoted to the exhibition.

Chicago's experience has proved that this pattern will stimulate more than sufficient public interest to support a new homes demonstration program lasting several weeks.



American Builder Opens TWO CONTESTS

for NATIONAL HOME MONTH celebrations

A for chapters of the National Association of Home Builders

R for retail lumber dealers

To stimulate broader interest in National Home Month and to encourage increasingly effective organization and use of local facilities, American Builder is again holding two contests in 1953. These are for the best National Home Week programs (Sept. 20-27) operated by local chapters of the National Association of Home Builders, and for the best demonstrations fostered by individual retail lumber dealers in communities not served by NAHB chapters, and the builder customers of the dealers.

Awards in each contest will be made to winners in four separate classifications, depending on the size of the chapter in contest A, and the size of the community served in contest B. The awards will be scrolls appropriately framed and ready for mounting on a wall at home or in an office. Awards will be made at the 1954 NAHB convention in Chicago, for contest A; and at the regional retail lumber dealer conventions, for contest B.

Contest A is being sponsored with the active cooperation of the National Association of Home Builders. Contest B has the active cooperation of the National Retail Lumber Dealers Association.

Contest A

The four classifications in this contest for builders' groups will coincide with the four groups into which NAHB divides its chapters: Group 1 will include chapters with more than 250 members; Group 2 includes chapters with 100 to 249 members; Group 3 includes chapters with 50 to 99 members; Group 4 includes chapters with less than 50 members.

Two scrolls will be awarded to the winning chapters in each of the four groups. One will go to the chapter in the name of the president or executive director. The second scroll will be awarded to the chairman of the National Home Week committee. After the presentation of these prizes at the time of the national convention in Chicago in January 1954, there will be an opportunity for the winners to get maximum local publicity by arranging meetings at which the scrolls will be presented again, this time in the home city of the winner.

How to Enter

Just write to National Home Month Editor, American Builder, 79 W. Monroe Street, Chicago 3, Ill., and ask for an entry blank. There is no charge or obligation of any kind. ALL NAHB chapters are eligible. The purpose of the entry blank is to provide American Builder and the board of judges with an idea of approximately the number of entries to be expected.

All entries must be postmarked not later than November 6.

Entries will be judged for: (a) scope of community participation in

Contest A Entry Blank

ENTRY BLANK - CONTEST A

Name of Secretary

Association Address

ENTRY BLANK - CONTEST B

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Builder—National Retail Lum Month Contest. It is understoo of the rules governing the con	d t	ha	t ye	U	wi	III	56	n	d	m	e					
Name of Proprietor																
Name of Manager (if line yar	d b	rai	nch)													
Address of Headquarter's Off	ce l	(if	line	y	ar	d	br	an	c	h)						
Address of your yard																

Contest B Entry Blank

the event; (b) quality of promotional and publicity material; (c) general over-all design and appearance of the houses displayed; (d) type of newspaper advertising; (e) actual results obtained—sales made, prospects developed, number of visitors; (f) unusual display angles; (g) equipment and furnishings of houses; (h) completeness of entry.

Be sure to include names of cooperating organizations; names of newspapers cooperating, with samples of issues containing editorial and advertising material about the exhibition; samples of handout literature, mailing pieces, etc; samples, copies, photographs of anything pertinent or interesting.

Contest B

For retail lumber dealers in cities where there are no chapters of the National Association of Home Builders

Entries in this contest will be grouped according to the size of the city or town. There will be four classifications. Group 1 will include dealers in towns of 35,000 population and up; Group 2, towns with population between 10,000 and 35,000; Group 3, towns with population between 2,500 and 10,000; Group 4, towns with population less than 2,500.

In the case of an individuallyowned lumber yard, the award will go to the owner or the manager. Since in some cases, winning an award will require the cooperation of one or more of the dealer's builder customers, or a realtor, or the head of some civic body, the winning dealer in each class may designate a cooperator to whom he thinks a companion award should be made.

In the case of a branch yard of a line yard concern, the award will

Free Booklets Tell How to Plan a Successful National Home Month

Write for American Builder's Howto-do-it booklets on National Home Month. One specially prepared for builders' groups and one designed for lumber dealers. Free on request.

go to the yard manager. Another award will go to the headquarters office of the line yard. In addition, the winning manager may designate a local cooperator to whom he believes a third award should go.

The awards will be scrolls appropriately framed for hanging on the wall of the winner's home or office.

How to Enter

Just write to National Home Month Contest Editor, American Builder, 79 W. Monroe St., Chicago 3, Ill., and ask for an entry blank. There is, of course no charge or obligation of any kind, and you do not have to be a subscriber to the American Builder. All dealers are eligible. The entry blank is simple and easy to fill out. Its purpose is to provide American Builder and the board of judges with an approximate idea of the number of entries to be expected.

All entries must be postmarked not later than November 6.

Basis for Judging

Awards will be made on the basis of presentation. The presentation should take the form of exhibits of what was done by the dealer in National Home Month in 1953.

Consideration in judging will be given to: (a) scope of community participation; (b) quality of promotional material; (c) general over-all design and appearance of houses displayed, or manner in which the lumber yard was dressed up for the Month; (d) type of newspaper advertising; (e) actual results obtained—sales made, prospects developed, number of visitors; (f) unusual display angles; (g) equipment and furnishings of houses, if houses are used; (h) completeness of entry.

Be sure to include names of cooperating organizations; names of newspapers cooperating, and samples of issues containing editorial and advertising material about National Home Month; copies of radio scripts used, if any; samples of all

other material used.



The Wise Applicator knows Wider Julian save application time....



*On Fitites wider than 8", space nails 4" apart.

It stands to reason that the man with the hammer can nail down a wide shake as fast as a narrow one. No wonder the men on the job like Fitite Shakes for their extra width! Yes, the average Fitite Shake covers more wall, permits a good applicator to apply as much as an extra square a day! With wider Fitites, fewer nails are required for the wall*, fewer nail-heads to show, less touch-up staining, fewer vertical "breaks" between shakes.

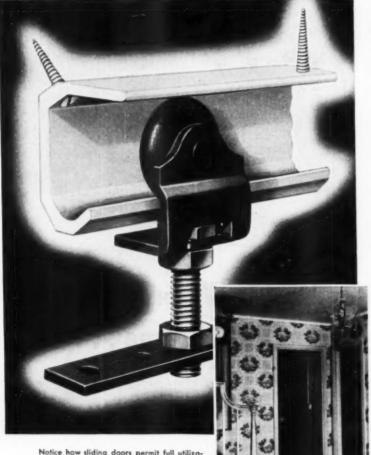
Where time is a cost factor (and where *isn't* it?), Fitite Shakes give the contractor the best performance in the field. They're made of extra wide, selected Certigrade shingles. They're stained and air-dried exclusively with penetrating, long-lasting Stayon Stains. You try 'em. You'll be glad you did!

WHOLESALERS ATTENTION: If you are interested in the sale and distribution of our quality line of pre-stained shakes, write immediately to:

COLONIAL CEDAR COMPANY, INC.

wiet is the word for

R-W Silver Streak vanishing door hardware



Notice how sliding doors permit full utilization of every inch of space in this limited hall area. There's no conflict between doors. Quiet it is. Noiseless, smooth and so easy to operate with a minimum of effort. That's R-W Silver Streak Vanishing Door Hangers and Track. It's the sliding door hardware built for extra comfort, extra convenience and space economy demanded by modern living.

Silver Streak Vanishing Door
Hardware is designed for installation
in standard 2x4 studded walls. It
brings more living space, more
efficiency to every home. Its easy,
noiseless operation makes it first
choice with builders and home
owners everywhere. For complete
information on all the exclusive
features of SILVER STREAK
Hangers and Hardware, write for
illustrated leaflet showing
complete architectural sketches
of installation methods.

1880



1953

Mag. U. S. Pat. Ur.

SLIDING DOOR HANGERS & TRACK • FIRE
DOORS & FIXTURES • GARAGE DOORS & EQUIPMENT • INDUSTRIAL CONVEYORS & CRANES
• SCHOOL WARDROBES & PARTITIONS •
ELEVATOR DOOR OPERATING EQUIPMENT

Richards-Wilcox Mfg. Co.

"A HANGER FOR ANY DOOR THAT SLIDES"

220 THIRD STREET, AURORA, ILLINOIS



"We're giving buyers ALL THERMOPANE in houses under \$10,000 ... and do they go for it!"

says Arthur B. Jensen of Walworth, Wisc.

"Our windows are mighty effective sales features," says Mr. Jensen. "Many prospects question whether a \$10,000 house can be a quality home until they learn we use *Thermopane** throughout. This is a stamp of quality and luxury in the minds of most people." He points out to them that the big glass areas, facing south, help to heat the home in winter. He calls attention to the fuel savings by having *Thermopane* insulating glass in every window. That adds up to a lot of sales appeal.

Mr. Jensen reports, "I have several methods of lowering the cost of homes, but the panel window system definitely plays an important over-all part". The panel window uses standard sizes of *Thermopane* units made

with low-cost DSA glass. Only two sizes are required—one for fixed lights in the panel window frame, and one for ventilators.

Here's another case of using this well-advertised, tremendously popular glass product and putting it to work to help sell homes.

You can also use standard *Thermopane* made of DSA glass in double hung, casement and awning sash. Of course, for larger windows, where greater clarity and strength are desired, you'll want to use *Thermopane* made of L·O·F Polished Plate Glass. Your L·O·F Glass Distributor or Dealer can give you full information. Or mail the coupon.



Thermopane

LOOK FOR THE NAME ON THE SEAL BETWEEN THE PANES

Libbey-Owens-Ford G	
363 Nicholas Building	, Toledo 3, Ohio
Please send me con of Thermopane.	nplete information on installation methods for low-cost windows
Name	(0) 811)
	(Please Print)
Address	

Maryland builder tells how...

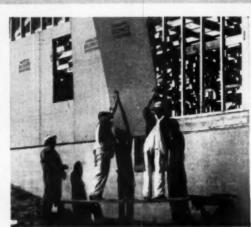
"4 ways to save cut costs



C. E. Burgdorf, project manager and Monroe Warren, Jr., ass't treasurer for Meadowbrook, Inc., look over plans on the site of their new 550-home Rockcrest project. With them is Bill Aitcheson, sales manager for dealer, Frank M. Ewing Co., Inc., Washington, D.C.

"With more than 1,000 houses being built in this area in the \$10,000 class, we knew we had to offer a better deal at \$500 to \$1,000 less. Our supplier, Frank M. Ewing Co., Inc., came up with these money-saving Insulite ideas that give us better construction plus a project saving of more than \$39,000."

Monroe Warren, Jr. and C. E. Burgdorf, Meadowbrook, Inc., Chevy Chase, Md.



1. Bildrite saves \$21 per home. By using 4'x 9' Bildrite instead of 2'x 8', Meadowbrook, Inc. saves \$5 per house in labor. Tremendous bracing strength eliminates need for corner-bracing (F.H.A. accepted), saves extra \$16. Compared with wood, Bildrite can cut sheathing costs \$80 to \$120 per home.

ROCKCREST, Rockville, Maryland Builder: Meadowbrook, Inc., Chevy Chase



with Insulite \$71 per home"



2. Shingle-Backer saves \$23 per home. Compared with No. 3 under-course shingles formerly used, Shingle-Backer reduced application time on the Rockcrest project 14 manhours per home by actual time-study tests. At the same time, Shingle-Backer increases insulation value, produces deep, shadow-line.



3. Primed Graylite soffits save \$11 per home, compared with exterior plywood formerly used for this 16" overhang. Made of the same material as tough, weather-resistant Bildrite, Primed Graylite is primed at the factory. It's easy to cut, easy to handle, easy to nail and takes paint perfectly.



4. Insulite cuts porch ceiling costs \$16 per home. One 6' x 9' sheet of Insulite Building Board covers this ceiling in a single operation. Costs \$16 less applied than 1" x 4" beaded ceiling formerly used. One coat of rubber base paint covers it handsomely. Cove molding is applied around the edges.



Made of hardy Northern wood



INSULITE DIVISION, Minnecota and Ontario Paper Company, Minneapolis 2, Minnesota

Please send me the Insulite Idea Kit with full information on these 4 ways to build better and save.

- 1. How to cut sheathing costs with Bildrite.
- 2. How Shingle-Backer cuts under-course time.
- 3. How Primed Graylite cuts soffit costs.
- 4. How to cut porch ceiling costs with Insulite.

Name Firm Address

State

City_

once and for all...let's take the mask off



save 50% on Sheathing Costs with CERTIGRADE CEDAR SHINGLES

You may be paying more than you think, for "cheap" roofing. Questionnaires returned from many sections of the country indicate that many builders fail to figure the cost of sheathing when estimating roofing expense. Certigrade cedar shingles, because of their great strength and rigidity, require only half the sheathing that you must use on ordinary roofing.



Yes, spaced sheathing costs about half as much as solid sheathing, and it costs only half as much to apply! You can count on saving about \$200 on sheathing and its application when you roof the typical 1952 house with cedar shingles. Normally, you will find that this saving more than makes up for the difference in cost of genuine cedar over substitute roofing.

Sharpen your pencil. Figure the comparative costs of cedar shingles with spaced sheathing as against substitute roofing with solid sheathing. We'll be glad to send you a handy estimating form which includes all of the factors of costs in building a new roof.

RED CEDAR SHINGLE BUREAU

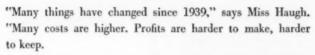
5510 WHITE BLDG., SEATTLE 1, WASH. . METROPOLITAN BLDG., VANCOUVER, B. C.

"Mosaic Clay Tile helps sell our houses..."

says Janet Haugh of Pittsburgh building firm.



Miss Janet Haugh, V. P., Brown & Vaughn Development Company, Pittsburgh, Pa. This firm, established in 1939, now has nine subdivisions in the Pittsburgh area. Latest is Longvue Acres in North Hills.



"One building material we believe in for beauty, performance and customer-satisfaction is Mosaic Clay Tile—a material we've used on our bathroom walls for 14 years.

"Our customers like the permanent smartness of clay tile in their bathrooms. They appreciate the freedom from expensive upkeep. And the ladies welcome the hours of cleaning time tile saves them.

"We like clay tile, too, for a business reason. We've found it to be one of our biggest sales features. That's why we use it in all our houses."



"Just an occasional sponging keeps my tile walls sparkling," says Mrs. Robert Slaney of 313 Guenevere Drive. "This is the first tile bathroom I've ever owned. Believe me, I like it best."

The North Hills Tile Company, The Contractor

"Showering's carefree fun when the walls are clay tile," declares Mrs. John Hernon of 9126 Pannier Rd. "Water never harms tile, doesn't discolor it. And, tile's soft colors give permanent freshness and harmony to our much-used bath-

Give your customers Mosaic Clay Tile—clay tile helps you sell your houses faster, makes your buyers happier.

See Mosaic Clay Tile today at your nearest Mosaic showroom, or at the showroom of your Tile Contractor. For tile-fact literature, write Department 35-11, The Mosaic Tile Company, Zanesville, Ohio.



(Member—Tile Council of America)
Offices, Showrooms and Warehouses across the nation
Over 4000 Tile Contractors to serve you

Offices: Atlanta e Boston e Buffalo e Chicago e Denver e Detroit e Greensboro e Hartford e Hollywood e Little Rock e Miami e Milwauke e Minneapolis e New Orlsans e New York e Philadelphia e Pittsburgh e Portland e St. Louis e Salt Lake City e San Antonio e San Francisco e Seattle e Tampa e Washington, D. C. e Zanezville





HOW one contractor reduces cost of COPPER PLUMBING

INSTALLATIONS



Plumber is polishing joints before fitting assembly together and lifting into position. This prefabrication saves time on the job



Soldering the copper joint completes operation. Torch heats copper, solder runs into fitting by capillary action

Builders specifying copper plumbing would do well to study the labor-saving methods worked out by William B. Park, plumbing contractor, of Winnetka, Illinois. Park found that three factors reduced his on-the-job costs.

1. Mechanized equipment

2. Utilization of long lengths

3. Rapid assembly techniques

1. Mechanized equipment. On a recent job, Park used a portable power hack saw to cut large copper pipes. As the automatic machine was cutting the copper pipe to length, plumbers went ahead with other chores. Thus, Park found the automatic cutting produced a savings in time. The power hack saw was slightly redesigned by the plumbing contractor to make it readily portable. He placed the saw and motor on a steel angle iron frame. The motor is removable to lighten the load. The lighter apparatus is easily moved within the proximity of the working plumbers. Park found that the machine, in a central location.



Completed copper assembly for a powder room is shown in this picture



Kitchen copper stack and vent show minimum cutting of studs. Easy installation reduces labor costs



Stack is increased one size through the roof. Milwaukee type plumbing code requires that this be done



One man can easily lift 16-pound copper assembly into place



Fastening the hanger to hold assembly is the next step



Bathroom installation shows stack and vents. Bath wall is normal 2x4 construction. Pipe sizes are 3-inch stack and 11/2-inch waste and vent lines

slowed the work. To gain time, the machine had to be near the workmen. If they had to walk to the other side of the building to cut a piece of pipe, they might just as well use a hand hack saw. Park reports that hack saw blades having 24-32 teeth per inch are the best for cutting

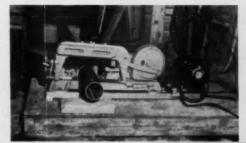
copper.

2. The longer length material utilized by this plumbing contractor insures other savings. By designing his plumbing layout, where possible, to use the full 20 foot lengths of pipe, he not only saves on the number of parts needed but also in the number of joints that have to be soldered. The weight factor makes the use of the longer material feasible as the 20 foot sections can be installed by one man.

3. Installation savings. "Faster installation is possible," stated the plumbing contractor, "since we do not have to cut the building apart." He went on to say that a 3-inch copper stack has an O.D. of 33/8-inch and will fit between normal 2x4 studs. Another factor that speeds installation is the treatment of joints. A copper joint requires about one and one-half minutes to complete. Here the plumber uses an instantaneous type torch with a large tip to heat as much area as quickly as possible. The instantaneous torch saves much time on the job as plumbers do not have to stand around and wait until a blowtorch heats up.

The weight factor also makes prefabrication of plumbing trees possible. These can be assembled by the plumber on the ground and lifted into position. The installation requires the plumber to line up the prefabricated section, connect and fasten the hanger to the joist and then solder the section into place.

Material for a complete one-story house can be delivered to the site in one small truck, resulting in additional savings.



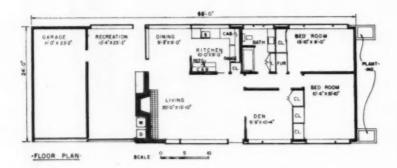
Covel's power hack saw is an integral part of the plumber's on the job equipment. Plumber can measure pipe, start the saw and then continue with other operations. Saw will turn itself off when the length of copper pipe has been cut

An angle iron frame and spring clip motor mount have been added by the plumbing contractor. Removing the 1/4 h.p. motor makes the rig easily portable



PORTFOLIO of Selected Homes

a lot of house for \$16,000



Bathroom has ceramic tile on floor, wainscot and counter top. Obscure ribbed glass and fluorescent lighting are unusual features.

The foundation for the house is built with five inches of gravel, then three inches of pumice, then a waterproof membrane topped with four inches of concrete. Black iron pipe radiant heat coils are installed nine inches o.c. in the concrete.

Built on a \$2,500 lot, this moderate-priced house gives unusually good value through such factors as open planning, a recreation room in addition to sizable living room, two fireplaces and radiant floor heating.

Colored pumice stone is combined with double cedar siding painted chocolate brown. The stone is run out four and one-half feet to form planter boxes at one end of the house. This same stone is used for fireplaces. The garage door is designed to match exterior wall of recreation room, next to it.

Ceiling of the living room combines a suspended ceiling with redwood paneling in natural finish. The suspended ceiling is of gypsum board, painted green.

Open planning brings kitchen and den into living area, with Modernfold doors to close off these rooms.





View of living room from den. Recreation room is through door in fireplace wall

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Prescolite lighting fixtures
Pryne fan
Schlage locks
USG Sheetrock

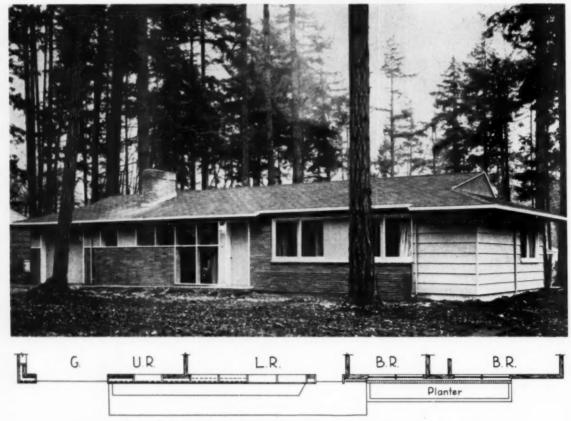




Center panel in outside wall swings out for ventilation. Obscure glass on either side, clear glass above



Kitchen from dining area. Note interesting sweep of windows across this rear wall of the house



This front elevation combines Roman brick with double cedar siding painted green. Note the use of 2x10½-inch mullions, jambs and sills which protrude two inches from plane of house

getting good variation in a moderate-priced plan



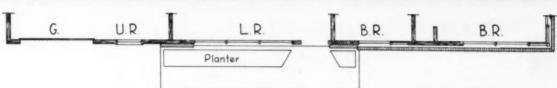
Basic floor plan is compact, has good circulation, and utilizes all available floor space

FOR \$12,000, buyers in Mountbrook Manor, an 85-lot sub-division in Tacoma, Washington, are getting a three-bedroom house with unusually good elevations, on a \$2,500 lot.

Architect John R. Nelson of Tacoma has skillfully used Roman brick, glass, and cedar siding in a number of appealing elevations. The houses are of standard frame construction, built on a slab, with dry wall partitions and perimeter heating. Lots average 90x120 feet.

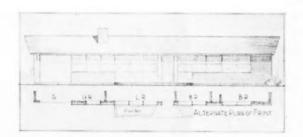
The builder, Tietz Construction Co., subs out all trades including carpentry. However, the company owns and operates a mill which makes cabinets, wardrobes, special window and door frames, mouldings and wood gutters used in Mountbrook Manor to give the added touch that makes these houses outstanding. Window sills, for instance, are nine inches wide. Mullions, jambs and sills in some elevations are made to protrude two inches from plane of the house.

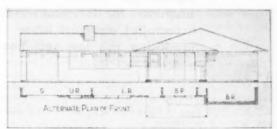




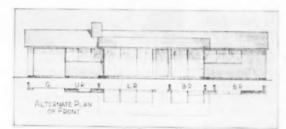
Roman brick with split bevel cedar siding. The front door, garage door and panels are of Etchwood.

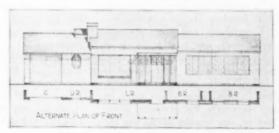
The central core of the elevation measures 22 feet; the bedroom end. 21 feet 4½ inches





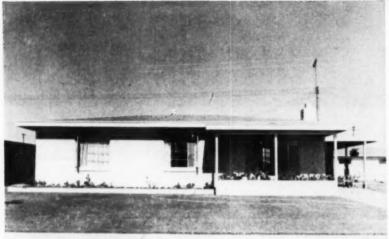
Four more variations of the basic plan. The extensive use of glass units makes a wide range of combinations for the facade possible





an \$8,950 house for project building





Corner fireplace of brick, and steel kitchen cabinets are luxury items which have been included in this low-cost mass production house. The basalite block walls are left exposed and painted, inside and out

Lightweight blocks for walls, aluminum for door and window assemblies and fast labor are producing this low-cost house

Manuel Jacinto of Sacramento, California, has perfected a three-bedroom basic plan of 1,031 square feet, with 15 elevations, which he carries out in mass production using concrete, basalite blocks and aluminum as the chief materials. The house sells for \$8,950 including a lot of approximately 58x100 feet. With fireplace, the price is \$9,150.

Foundations and floors are concrete; walls are basalite block—a composite of sand, cement, and pumice made up into 28-pound blocks 8x8x16; ceilings are plasterboard; sash, frame, doors and trim are aluminum. Waterproofed at the factory, the basalite blocks are left exposed and are painted inside the house and outside. Floors are asphalt tile. Roofs have either shingles or built-up roofing on the lowpitched models. Every house has a carport with extra storage space at the rear. A concrete terrace at the rear of the house is also included.

Jacinto considers that the use of the lightweight blocks instead of frame construction saves on costs because: (1) forms are simpler; (2) excavation is done by machinery; (3) no finish other than paint is needed for interior walls; (4) no trim is needed around windows and doors because these units are aluminum; (5) painting cost is about







half what it would be on a frame house, and (6) slab floors are inexpensive.

The block walls are put in place for 65 cents a square foot. Jacinto achieves this low figure by careful organization of every phase of the work and by close supervision given by himself and his foremen.

The basalite blocks are delivered to the job from the plant in Napa, California, and cost about the same as any other lightweight block. The blocks, themselves, do not guarantee cost-saving, although they lend themselves well to the highly efficient type of materials handling which Jacinto has worked out. The big points in his cost-saving technique are that he uses only one floor plan and has streamlined crew operations for maximum efficiency. The workmen know exactly what they are supposed to do and they know

the foremen know how long each operation should take.

This is How Jacinto Works

A Buckeye Trenchmaster moves on the lot and digs trenches in 15 minutes; then four men set the forms in half an hour. The rough plumbing is laid in one hour. By the end of the day, 10 to 15 concrete slabs are poured and finished with power-driven machines.

Basalite blocks are stacked toward the middle of each slab. Four crews erect the walls. One crew builds nothing but exterior walls, including openings; another puts up partition walls; a third builds fireplaces; a fourth builds the storage space that is part of the carport. Even these crews are further organized: some men work on nothing but corners, some put in middle blocks, some work only on bond beams. Each man becomes expert and fast at his job and needs a minimum of supervision.

Result: walls containing 1,882 28-pound basalite blocks are laid in 48 man hours.

Following the block layers come the carpenter crews. They install the ceiling joists, roof rafters and sheeting. The gypsum ceilings are hung by still another crew. Since the roofs may be of cedar shingle, asphalt shingle or tar and gravel, three roofing crews are always working simultaneously on the tract.

Jacinto uses steel kitchen cabinets. They cost more but he can install them in an hour. He decided he could save time also by using aluminum doors. He worked with the Truline company, and the result was the development of an aluminum door and jamb assembly now used throughout a Jacinto house.



Furnace is located in hall, which has a 7-foot ceiling; other rooms have 8-foot ceilings. The one duct from the furnace connects with a ceiling diffuser in the living room. Outlets in hall heat other rooms





Power machines and a highly organized system of job assignment speed construction. It takes 15 minutes to dig trenches, an hour to install foundation forms. Blocks are stacked—1.882 to a house—on the foundation. It takes 48 man hours to build them into walls. Four crews do nothing else. Three do only roofing

The success of this innovation in turn led to an adjustable aluminum window frame. This makes possible installing the sash along with the door when the masonry and carpentry have been completed, thus eliminating the necessity of installing the sash directly in the block.

The Sales Record

Jacinto has built some 1,500 of these block houses since 1949, Prior to that he built frame houses selling at \$9,500, but he was convinced that basalite block, if properly laid and treated with waterproof paint, would withstand the elements and help to produce a lower-cost house. FHA was skeptical but gave its approval after Jacinto had built a test house and proved its ability to withstand the Sacramento weather the year around.

Jacinto opened a model home and

placed a first group of 120 block houses on sale. Sixty-two of them were sold the first day and the rest by the end of that first month.

When the next group of 140 houses went on the market four months later, all houses were sold in four hours. Sixty days later, 141 houses were sold on a Saturday morning within four hours of the opening. Ten months later, 118 more of these houses were sold the day they were placed on sale.

There was no advertising in connection with any of the above openings; buyers had heard about the houses from friends or former buyers, and had placed their names on file to be notified when more houses were available. They came in response to cards mailed to them by the Jacinto company stating that a number of houses would be placed on sale at a certain hour.



Aluminum door and frame assemblies are installed after the house is finished

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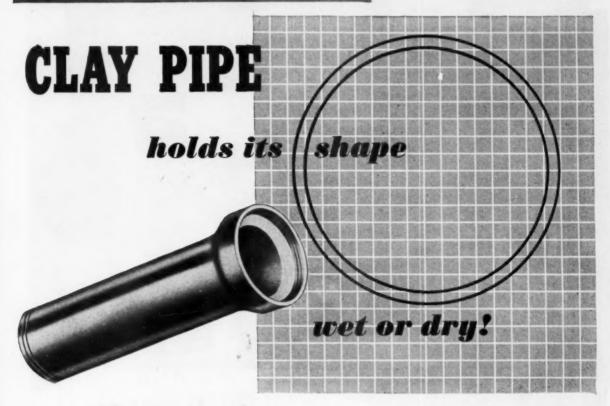
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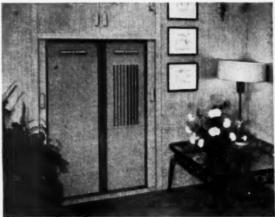
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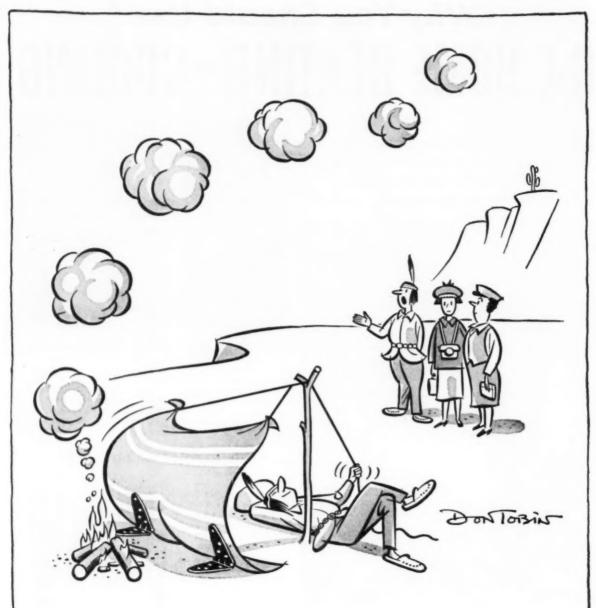


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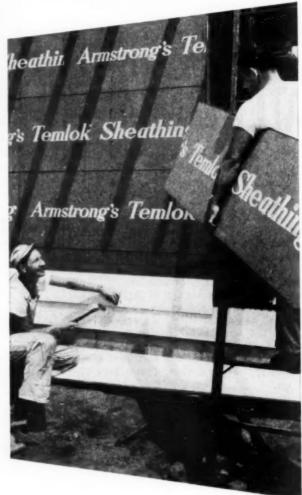


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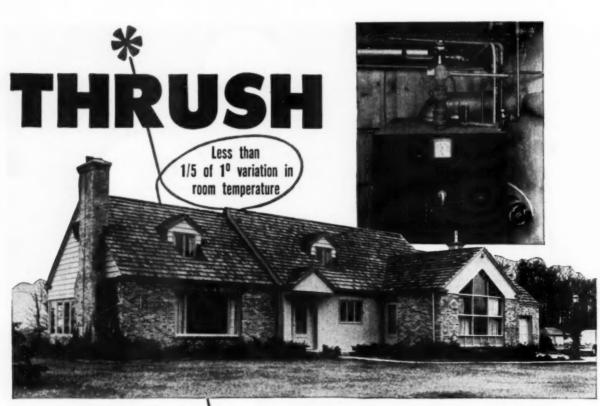


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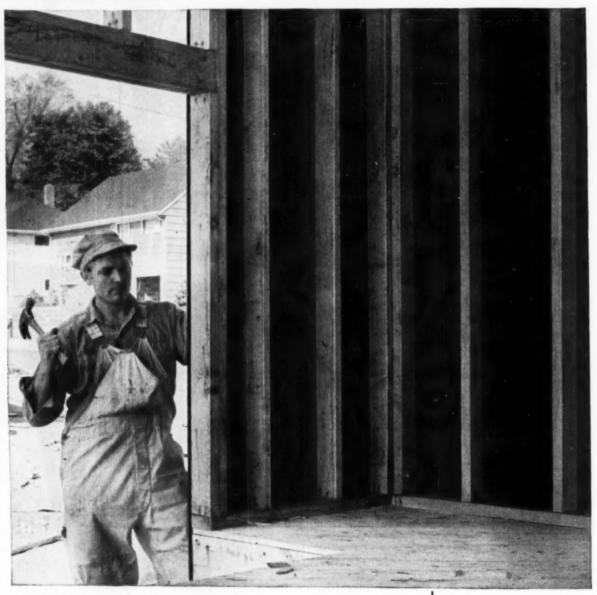




MANUFACTURERS OF THE ONE COMPLETE LINE OF VENTILATING FANS



Builder saves



Celotex National Advertising Puts the Spotlight on You

To help make this a banner year for you, Celotex is staging a power-packed national advertising campaign. Big, colorful, hard-selling ads—month after month—in THE SATURDAY EVENING POST, BETTER HOMES & GARDENS, AMERICAN HOME, SMALL HOMES GUIDE. All telling prospects right in your own community—"See your builder!"

These impressive, full-page Celotex ads are designed to build business for you. Tie in with them by emphasizing to every prospect that your homes are built with genuine Celotex Products. This makes your selling job easier. Because, over a third of a century of national advertising leadership has created nationwide preference for the brand name Celotex!

Impartial survey shows
ARCHITECTS PREFER

CELOTEX
INSULATING SHEATHING

2 to 1 over the next leading brand

\$15,000 on 300 units

with Celotex Insulating Sheathing that eliminates need for corner bracing

"We save the cost of corner bracing on our homes by using 4 ft. wide, 25/32" thick Celotex Double-Waterproofed Insulating Sheathing. Its great structural strength enables us to meet F.H.A. requirements without corner bracing. Our cost figures show this saves us an average of \$50.00 per unit, for a total saving of \$15,000 on 300 homes so far built."

> Charles Costanzo, President GARDEN CITY DEVELOPERS Teaneck, New Jersey



Reports from dozens of other successful builders confirm Mr. Costanzo's experience. But remember, Celotex Insulating Sheathing does more than save materials, shorten erection time and lower labor costs. It also makes your homes stronger, more comfortable, easier to sell! Applied, Celotex Insulating Sheathing costs no more-usually LESS-than ordinary sheathing. Yet it gives you all these practical job advantages . . .

- 1. Insulates and Weatherproofs as it builds. All at one cost. No building paper needed.
- 2. Laminated for Extra Strength and rigidity. All Celotex 25/32" Insulating Sheathing is made of 2 plies, permanently bonded.
- 3. No Corner Bracing Needed to meet F.H.A. requirements, with 4 ft. wide, 25/32" thick Celotex Insulating Sheathing. Has approximately 30% greater

bracing strength than ordinary sheathing.

- 4. Goes Up 30% Faster. Easier to cut and fit. Up to 15% less waste.
- 5. Excellent Shingle Base. Shingles can be applied direct, or over Celotex Impregnated Backer Board with special nails.
- 6. Double-Waterproofed. Inside, by integral treatment that coats every fibre; outside, by asphalt coating. Lets you resume work quicker after rain. High vapor permeability, too!
- 7. It is the Only Sheathing made of tough, strong, long Louisiana cane fibres-and protected by the patented Ferox® process from dry rot and termites.

Mail coupon for factual FREE new booklet, "40 Questions and Answers about Insulation Board Sheathing."

Build Better ... Build with Genuine

ELOTEX INSULATING SHEATHING

120

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	e new Celotex booklet, "40 Questions ulation Board Sheathing."
Name	
Address	
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----- MAIL TODAY! -----

the big market is under-\$10,000



Spurred upward and onward by its success with this \$7,000 house. Kansas City's Winn-Rau Corporation is now expanding its operation to produce three-bedroom and four-bedroom houses to sell for under \$10,000

In Kansas City, Missouri, Winn-Rau Corporation is convinced that the big market for new houses is at the under-\$10,000 level. Geared to mass production on raw land, last year the company produced 500 houses in six months on a 200-acre tract. Every house was sold for \$7,000 and all houses were sold during a five-week period.

The product is a completely finished two-bedroom house with five elevations, built on slab, with 701 square feet of living space. It was offered in a fully improved subdivision, with paved streets, curbs and sewers, plus all the utilities. Lots were 50x120 feet. Front yards were sodded and landscaped.

The house has an American Metal Kitchen including an island breakfast bar. Truscon steel double hung

there will always be a market for a package that is right

this house is a seller





This low-cost house (\$7.100 to \$7.250) is selling well in the Dallas market. Low down payments (\$400 to \$425) with equally low monthly payments (\$38.50) reach buyers with incomes as low as \$250 per month

And it sold. The sales record surprised even the builders who were out to test only market reaction. Sharp planning on the part of the builders Abston and Miles of Dallas, Texas, produced a house scaled to the selling price.

Before opening day 10 houses were sold, many of them to workmen on the job. Opening day crowds braved rain to see the low cost development and nine more were sold. During the first week, 30 more sales were chalked up. This house a seller? Yes, but it was planned to sell. The builders were looking to the low down payment market. Sales prices are \$7,100 and \$7,250 including \$270 closing costs.

Down payments run \$400 to \$425 including the closing charges. Monthly payments run \$38.50 plus insurance and taxes on a 25 year amortized Ioan. Prospects with monthly incomes as Iow as \$250 can qualify as purchasers.

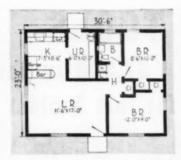
There is no secret formula used

in producing these low cost houses. All carpentry is broken down into specialized operations. Eleven operations are used in the erection of the house. Standard wall framing is built on the slab and tilted into position. The roof framing is 2-12 pitch trusses, Interior walls are drywall. Floors are oak nailed to 1x4 screeds set in mastic.

The houses have a contemporary look. Five plans are used with three elevations each. Color is used to further vary the exteriors. windows, forced air gas heat, pulldown storage steps, maple slab interior doors. Finish floor is asphalt tile

A new idea that caught the fancy of buyers was that every house was priced at \$7,000, whether it was on a corner lot, in the middle of the block, in a wooded section, on a slope, or wherever. Typical mortgage was for 25 years, insured by FHA, with monthly payments of \$59.92.

Winn-Rau states that the secret of success in a mass-production operation is threefold: (1) the ability to buy everything by the carload or truckload, (2) a highly efficient organization and (3) the fullest cooperation from the subcontractors, Of the three, the last is the most important.









CO	ST	BRE	AK	DO	WN

Labor	\$ 725
Lumber Materials	2,000
Plumbing-Heating	700
Roofing	200
Electricity	125
Plans	35
Permits	100
Concrete	600
Paint	425
Miscellaneous	50
Overhead	100
Land	1,000
Profit	700
Interim Financing	160
Closing Costs	270
Advertising	10
Total	\$7,100

 -	-	 	

Screeds		\$25
Framing		35
Truss operation		75
Decking		25
Siding and Comice		75
Windows		25
Car Port Ceiling		20
Out Cornice		15
Floor		32
Strip Ceiling		15
Inside partitions		35
Dry Wall		45
Trim Out		65
Cabinets		6
Supervision		100
Day Help		125
Miscellaneous		7
	Total	\$725



To avoid peas-in-the-pod appearance, porch, window, entrance and roof treatment are varied. Combinations of horizontal and vertical siding and color use vary exteriors further





tops with TOOLS

\$7,500 in power tools pays off for this builder of custom houses

Bob Crowe of San Gabriel, California specializes in general contracting for custom-built houses costing from \$25,000 to \$100,000. He has about \$7,500 invested in a complement of power tools which he has organized as a portable heavy-duty cabinet shop.

The contracts come to Crowe because architects know that he can produce almost any detail or special effect, often at a cost far below that of a mill. Recently for one house on which a mill quoted \$7,000 for the millwork, Crowe produced the items for \$5,000.

Crowe carries his tools on a depreciation schedule and charges off depreciation maintenance at the end of the year. Maintenance, sharpening and grinding ran to about \$1,000 last year.

Here are the tools Crowe owns

14" table saw built as a unit with an 8" jointer

DeWalt cut-off saw in waterproof compartment, with storage drawers

Delta 8" table saw Delta 4" jointer

Two 8" Black & Decker handsaws

6" Porter Cable handsaws
1/2" Aristocraft electric drill

1/4" U.S. electric drill

1/2 h.p. Craftsman drill press Mall electric screwdriver

Stanley router

Stanley doorplaner Stanley hinge butt jig

Remington stud driver

Davis & Wells special shaper

Black & Decker high-speed grinder converted to use of wire brush

Two Porter Cable sanders Jr. Tool Co. vibrating sander

Delta disc sander

Power feed boring machine and mortiser

2-cyl. Kellogg Crown air compressor

2-spindle hori. shaper

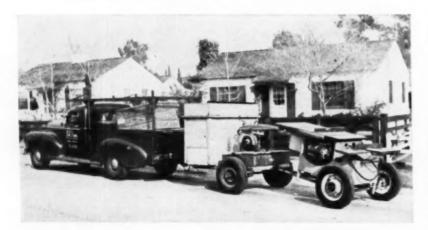
Micron transit

Acetylene welder

Arc welder

1/2 h.p. B&B double-end

transporting the tools to the job, and setting up



Tools travel via a double trailer hook-up. Immediately behind the truck is the DeWalt cut-off saw with its big storage box, mounted on a trailer. Behind the DeWalt is another trailer carrying the combination table saw and jointer. This trailer hook-up can be accomplished in just a few minutes by two men.



This is the special tool box designed by Crowe to store hand tools of all kinds, blades, etc. The box is waterproof. It is mounted on the trailer with the DeWalt saw, just behind the truck.



In the truck itself is the big box containing rough hardware, nails, hinges, etc. This box is taken inside the house under construction. This photo also shows a smaller box, which is fastened to the bed of the truck. In it are samples of Formica, asphalt tile, color chips, data sheets on various products.

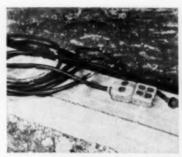
All storage boxes are waterproof and can be locked.



Crowe's portable job office has telephone, light connections, plan table, etc., and a storage box on outside.

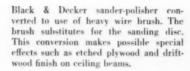
+ 110 V. Ground -110 V Outlet Outlet

Crowe has worked out a method of getting both 110 and 220 volts through a single cord, instead of using two cords. The two 110 legs in the cord are used



to create the 220 outlet and one of the 110 legs and the ground make the 110 volt. A 15 amp, twistlock connection is used for the 110 and a 20 for the 220.

tools at work







Ripsaw operation on the 14-inch table saw built by Crowe. The unit has a Pryor jointer attached.





Straightening a door on the Pryor jointer.

Two-way tilting table bandsaw (built by Crowe). The table tilts to the right and left, making possible a reverse bevel cut without turning the work end to end. This saw is also used for fancy scroll work around kitchen cabinets. The table is mounted on two steel trunnions which make the hinge point at the top of the table. The tilt of the table is 45 degrees to the left.

Using the home-made table saw to back out a casing. This operation is frequently done with a dado set, which requires two operations to get a cut wider than 7/8-inch. Crowe gets this rounded cut by running the board through the saw just once. The homemade jig or fence is clamped to the saw so that the work passes through at the right angle, diagonally. The blade is adjusted to depth of cut desired.

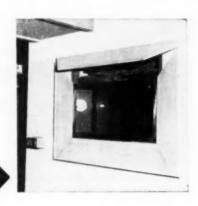


tools at work



Making a bevel cut on a Forsberg planer. This is often done on a jointer, but Crowe finds that the jointer offers less control over thickness. The planer planes to a uniform thickness so that when the type of cut is established, all pieces are identical. In this case the jig is made by nailing a strip of wood to a piece of 1x6. This raises one end of the casing to the position required by the bevel cut.

This aquarium built into the wall of a house illustrates the use of the beveled pieces produced by the planer. If this framing had not been made on the planer, the four pieces would have had to be matched by hand in order to get perfect mitres. Note that the top piece is hinged to give access to the aquarium.





Davis & Wells special shaper making raised panels for doors and walls. The builder needed 100 of these panels, so made a jig which is held in place by C-clamps. The shaper has a speed of 10,000 r.p.m., which results in surfaces so smooth that little or no sanding is necessary. This photo also shows the 30-inch extensions which Crowe made on both sides of the machine by welding on additional tables. This facilitates the handling of long pieces of molding.



Using the Porter Cable belt sander.



Close-up of door with raised panels produced on the special shaper. Bob Crowe himself inspecting the work.



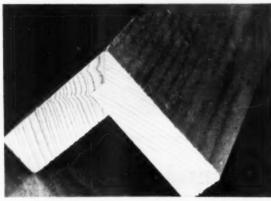


Showing the use bench clamp to hold upright using a Stanley spoke shaver, Clamp is made adjustable by a wedge piece, so that boards from one-quarter inch to more than two inches in thickness can be held in place. Clamp is about eight inches long and is made from 1-inch lumber. The two cleats are nailed to the sawhorse and the wedge is loose.



Note the triangular stand resting on the floor, attached to the end of this Allen-Randell cutter. It is a home-made idea which holds the cutter upright, making it easier to cut a heavy piece of reinforcing steel. It also holds the cutter upright while the operator is arranging the next piece for cutting. Without this stand, the job is cumbersome, often takes two men.

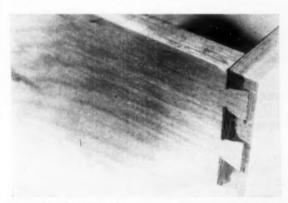
a few of the things the tools can do



Shoulder mitre joint made on the Davis & Wells shaper. Both male and female cuts are ground on one piece of steel which costs about \$20. The joint is strong because of added gluing surfaces and because both pieces have a good bearing on each other. It goes up faster because it aligns itself and is easy to nail.



Spline joint made on the Davis & Wells shaper. This shows the fabrication of a natural wood (mahogany) sink top using the spline joint, which gives added gluing surface, added water-proofness, added strength. It also speeds up assembly. All cuts by shaper are identical. So only one set-up of knives is needed.



Dovetail made with Stanley routes Stanley supplies the jig for this cut. It is mounted on a work bench and holds the work in place. All fronts and sides are made at the same time.



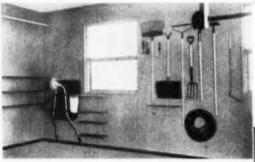
Sink top and cove made on the Davis & Wells shaper.



NOW a new closet

Here are two ideas using the same product. The perforated wall material* has many special brackets that slip into the perforations to support various shelves and hooks.

The closet using this material has been widened to 30 inches. The extra depth



allows space for out of season storage. The tri-level clothes pole rotates for easy accessibility to items suspended on the rear wall. The perforated sheet material can be installed quickly, does not need finishing.

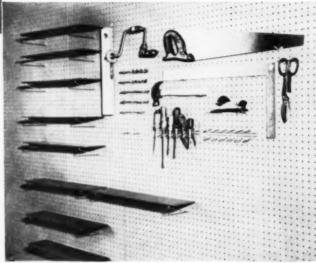
Garage interiors can be dressed up to serve as support for tools, garden equipment, etc. The brackets fit into the perforations and can be moved at any time.

A 12-inch shelf with two supporting brackets will carry up to 40 pounds. A simple hook will withstand up to 100 pounds of downward thrust.

IDEA of the month



can be used in garage, too



^{*} Peg Board manufactured from perforated Masonite Tempered Duolux by B. B. Butler Mig. Co., Bellwood, III.



Only with These Patented Clipper Features is Masonry Cutting Economical . . .





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TODAY!...Try the New-Faster Cutting-Economical CLIPPER SUPERIOR BLADES

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Home buyers hit from every angle as-Servel

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It's definitely in the cards . . . 1953 will be the biggest year ever for residential air conditioning!

You see the proof in immediate public response to every air-conditioned model home—in every authoritative prediction. When you ride this trend you immediately put your homes above competition. And you'll see a solid result in faster, easier sales and better profits!

Servel is paving the way for you with the biggest advertising campaign in the history of air conditioning. These ads run in big space in the top magazines that your prospects read.

In effect, this Servel campaign is *your* campaign. It directs prospects to you just as surely as if you signed every ad yourself. Be ready with Servel *All-Year* Air Conditioning—your customers will be asking for it!



BOOK OF

BUILDING

A PLANS

breaks gigantic ad drive on All-Year AIR CONDITIONING

OFFER your prospects this tremendous reason to select the homes you build—Servel All-Year Air Conditioning for little more than the cost of an ordinary heating system!

Cooling without moving parts

The most amazing Servel feature is the exclusive absorption principle that creates cold from a flame. Yes, a clean gas flame both heats and cools a Servel Air-Conditioned home! Oil-fired units also available. There are no moving parts in either the heating or cooling unit, for long life, low upkeep, and quiet, vibration-free operation. Every unit is warranted for five years.

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1. Cools by refrigeration in summer; 2. heats in winter; 3. cleans the air; 4. removes excess moisture on hot days; 5. adds needed moisture on cold days; 6. circulates the air; 7. ventilates with outside air.

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SERVEL All-Year® AIR CONDITIONING for every size home!



New 2-ton unit for small homes. Budget-priced. Occupies only 8.62 square feet of floor area. Gas-fired.



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Remarkable value with 3/4-h.p. unit at the usual 1/2-h.p. price.
*Trademark Reg. Pending

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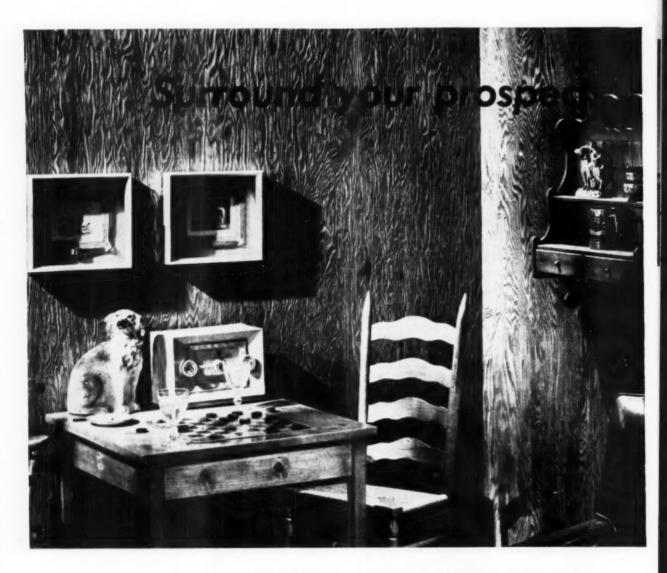
Rush me details on Servel All-Year Air Conditioning and how you help me sell homes.

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WedgeWood genuine wood wall paneling comes in 4 x 8 ft. panels that nail right to studs or furring strips.

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The swirling grain and rich, sculptured texture of WedgeWood lend themselves to dramatic two-tone color effects that are in complete accord with the sweeping trend to texture in decorating.

Let WedgeWood help you sell the next homes you build.



WedgeWood blends harmoniously with modern furniture, fabrics and accessories.

WedgeWood brings you limitless new styling and color possibilities



WedgeWood fits with timeless ease into traditional decor. Your customers will find their favorite style fits right with WedgeWood.

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Proved on many thousands of types of reinforcing jobs all over the nation, the outstanding features of Keymesh make it the most versatile and preferred lightweight reinforcing obtainable. It is not only economical to use, easy to handle, but goes up fast, is noninjurious to the hands, provides smooth troweling, and really reinforces through its open-mesh design. The reverse twist weave and the hexagonal mesh design provides multidirectional reinforcing as well as greater bonding surface.



Keymesh used to provide a tight, durable key for insulation covering on supply ducts.



Applying Keymesh reinforcing as a base for interior tile. Notice the ease of handling.





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As tile or terrazzo underbed reinforcing or used with concrete, mastic, oxychloride, asphalt emulsion and other finishes for floors and walls-Keymesh has gained wide acceptance and preference. It is easier to handle on the job, rolls out flat, and provides multidirectional reinforcing with greater bonding surface through its reverse twist weave and hexagonal mesh design.

Keymesh also assures a firm, crack-resistant base for any type of roof deck finish applied over a "mix" substance. In addition, it makes an easy-to-apply base for the insulation of large air ducts, pipe lines, outside tanks and vaults. Tile or similar surfacing installations applied over tubs, in showers, or in complete bathrooms remain water tight and structurally sound when the base is reinforced with Keymesh.

In fact, Keymesh will provide more permanent reinforcement for lasting quality and beauty on any location where stucco, plaster, concrete, or any finish over a "mix" base substance is used.

ASK YOUR SUPPLIER ABOUT KEYMESH



to-handle rolls.



Keymesh reinforcing was nailed direct to old floor. New floor surfacing is being applied here over the reinforced base.

Keymesh reinforces plaster or any base for wall or floor tile assuring maximum crack resistance.

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Models 25,000 to 55,000 BTU input - heat 2 to 5 rooms

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Here's leadership for you — a well-planned, balanced line of wall heaters with new designs, new features, new heating performance. Improvements that put the Coleman line out in front! The revolutionary Directionair Blower and Economizer Grille are Coleman exclusives that assure low-cost homes complete warm air comfort — create customer preference.

Each heater is a complete unit in the wall, extending out about 4 inches. Small inner casing 13%" wide x 57%" high, with depth to fit standard 2" x 4". No basement, no excavating, no air ducts needed. Beautifully styled, ideal for small construction and slab-floor homes — small homes, apartments, upstairs or basement rooms, tourist courts. Single and dual wall models for heating one or more rooms — multiple installations for zone heating.

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PUTS MORE HEAT INTO ROOM

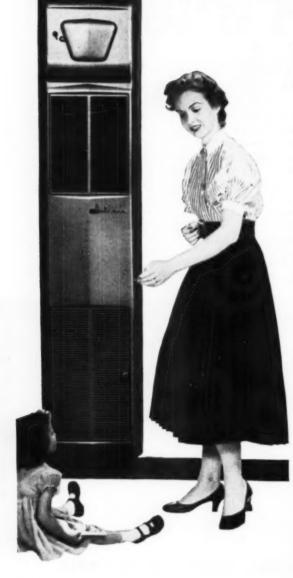
It's a register that fits in wall above heater—prevents waste of heat up chimney—helps cut fuel costs. When Directionair Blower is in use, ceiling air flows through Economizer, thus helping to increase circulation.

NEW DIRECTIONAIR BLOWER

INCREASES WARM FLOOR COMFORT

Attach any time to any model—no cutting, no installation problem. It pulls room air from the ceiling and blends it with freshly heated air—then puts the blended warm air down at floor level. Doubles warm air circulation. Keeps air moving—not static and stagnant—keeps the low living zone comfortable. Operates at 3 speeds, adjustable. Automatic temperature controls, optional.

REAR GRILLE: Some models have additional rear grille that puts 20% of heat into another adjoining room. Takes off the chill-makes single wall heater give dual wall convenience.



with this sensational, equipment-by Coleman

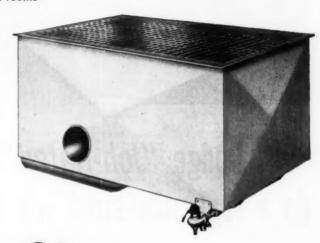
FLOOR FURNACES with heat-making, fuel-saving efficiency OIL GAS LP-GAS

Fits in floor — takes no space. Heats 2 to 5 rooms

Space-savers the home buyer always appreciates! Complete, compact units that fit in the floor. No basement needed, no air ducts, no trouble installing. Perfect for long years of trouble-free operation, they give complete change of fresh warm air 3 to 5 times an hour.

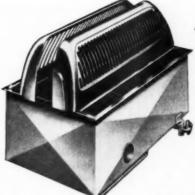
Oil models have exclusive new Coleman Fuel-Air Control that saves up to 25% of fuel. Gas models have many Coleman exclusive features—Stainless Steel burner, full gas flow on only 3½" of water pressure, with Streamlined Bottom for 35% faster air flow.

FLAT REGISTER MODEL (at right)—lies flush with floor, takes no space. Efficient, quiet performance with 84% open register for maximum heating comfort.









DUAL WALL MODEL (at left) - fits beneath wall or partition, heats two adjoining rooms at same time. A complete, compact unit easy to regulate and keep clean.

Send for more information on these scientifically engineered, attractively designed wall heaters and floor furnaces that give low-cost homes powerful sales attraction. The Coleman Company, Inc., Wichita, Kansas.

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More money-making payloads!—Just put a Dodge to work for you and watch it go to town on those hefty loads of lumber! Ideal weight distribution lets you carry bigger payloads without overloading. And, thanks to shorter wheelbases and wider front treads, an easy-handling Dodge can wheel through deliveries in less time with less effort. Enables you to make *more* trips per day!

More power-packed performance!—Get the right power for your job with a Dodge "Job-Rated" truck! Big, burly engines—from 100 h.p. to 171 h.p.—let you tackle toughest hauls with confidence! New super-safe brakes in 1-through 4-ton trucks... no-shift Truck-o-matic transmission available in ½- and ¾-ton models! Your friendly Dodge dealer will gladly give you all the money-saving facts... and he'll make you a mighty good deal!

. . . says **Ernest Lane**, Co-owner, Berry & Lane, Napa, California

"To transport building materials at a profit, our trucks have to be as dependable as they are economical to operate. That's why we have bought five Dodge trucks in the last year—everything from ½-ton to 2-ton. And we're going to keep on buying them, too!

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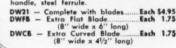
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2-FOR-1 TOOL. For dry wall feathering. 2 flexible spring steel blades, 1 curved, 1 flat. Blades instantly interchangeable or may be used together if rigidity is desired. Each blade fits in either knife position, as illustrated, or reverse trowed position beneath the handle. Hardwood handle, steel ferrule.



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DWCH





TAKE-DOWN "T" SQUARE. 47%" leg with 18" "T".
"T" folds down to align with leg for convenient carrying and storage (see illustration). 47%" leg, perfect for scoring 48" wall board panels. Square weighs only 20 oz.

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DOOR CHIMES have the FLOATING

PERCUSSION UNIT!



This is the only chime striker unit that eliminates metal to metal contact between plunger and solenoid tube.

HERE'S WHAT it does—assures dependable, quiet, service-free chime performance. It ends annoying hum, buzz and sticking plungers. No Rittenhouse Door Chime with Floating Percussion Unit has ever been returned for servicing because of jammed or sticking plungers...most common cause of failure with conventional chime design.

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THE RITTENHOUSE CO., INC. 13 Owen St., Honeoye Falls, N. Y.

when is a union guilty of unfair labor practices?

By John F. McCarthy
Attorney at Law



The ofttimes futility of laws and regulations in solving labor problems is shown by the recent difficulties between the Ioliet Contractors' Association and the Glazier's Union. Local 27 of the Brotherhood of Painters. Decorators and Paper Hangers of America. This occasioned five years of bitter litigation which ended in the recent decision of the United States Court of Appeals in Chicago, in the case of Ioliet Contractors Association and others v. National Labor Relations Board, No. 10667. The decision, incidentally, was against the contrac-

In January, 1948, in the Joliet, Illinois, area, the Union commenced a comprehensive boycott to eliminate the use of preglazed sash. Its by-laws and rules prohibited work for contractors or on jobs using preglazed sash. It published a list of contractors and material men characterized as "unfair" because they refused to comply with the Union's requirements. The Union refused to assign or permit glaziers to work on jobs of those deemed "unfair."

In due course the Joliet Contractors' Association availed itself of the provisions of the Taft-Hartley Act and complained to the National Labor Relations Board. In October, 1948, the Board formally charged the Union with alleged unfair labor practices and notified it of the charges. About the same time, on application of the Board, the United States District Court in Chicago issued an injunction against the Union restraining the

practices complained of pending a final determination by the Board.

In July, 1949, after lengthy hearings before a trial examiner of the Board, the examiner filed an intermediate report in which he found that the Union was guilty of unfair labor practices and recommended that the Board issue a so-called cease and desist order. However, about another year later, in June, 1950, the Board dismissed the Contractors' charges on the theory that the activities complained of were local in character and did not affect interstate commerce and that a decision concerning those activities would not further the purposes and policies of the Taft-Hartley Act.

In January, 1952, the United States Court of Appeals in Chicago reversed the Board's decision and directed it to pass on the merits of the controversy. This the Board did by finding that the Union had not engaged in unfair labor practices and by dismissing the Contractors' complaint. It was this decision of the Board which was affirmed by the January, 1953, opinion of the Court of Appeals in the case of Ioliet Contractors Association and others v. National Labor Relations Board, referred to previously. The Court observed that the activities of the Union and its members were designed to prevent the establishment of an employer-employee relationship by stopping glaziers from commencing work for contractors who used preglazed sash. The Court said that this is not an unfair labor practice as those matters are de-

(Continued on page 120)



Pull the rug from under competition <u>now;</u> feature new Bundyweld Ceiling Radiant Heating



Key to Low Cost

Bundyweld is the only tubing double-walled from a single strip, copper-brazed through 360° of wall contact. It's leak-proof, thinner-walled, yet stronger. It transmits heat quickly, has high bursting strength. It saves on material costs and installation time.

Standard 20' lengths of Bundyweld are easily formed into coils in shop or on job site. Expanded ends (furnished when specified) are quickly soldered into leak-proof union. Joined, lightweight coils are easily mounted onto ceiling, quickly plastered over.

Now you can pull the rug right out from under your competition with a tresh, sound sales feature — Bundyweld Ceiling Radiant Heating.

Thousands of near-ready home buyers and builders read Bundy ads in Better Homes & Gardens, American Home, Small Homes Guide, and House Beautiful. Surprising numbers of them, in hundreds of communities, talk with friends already living with Bundyweld Ceiling Radiant Heating. The convincing story never varies: even-temperatured comfort, freedom from drafts and soot, dirt-free walls, no awkward radia-

tors or registers, redecorating postponed years.

Interest turns into enthusiasm as prospects see how this economical system has made all others obsolete. We've had a small blizzard of requests for information and names of local architects and builders who offer Bundyweld Ceiling Radiant Heating. You can make them your customers. Why not send coupon right away for Bundy literature?

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screening. Please standard window	e send me enougy, 2'0" x 3'2", ar		
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City			State
ARCHITECT [BUILDER [CONTRACTOR [SUB-CONTRACTOR

(Continued from page 118) fined by the Taft-Hartley Act. The Court was of the opinion that unfair

labor practices, as defined by the Taft-Hartley Act, relate only to conduct after the relationship of employer and employee has commenced and while work is in

progress.

At this writing the Contractors have asked the Court to reconsider its opinion. The Court has not acted on that request. The Contractors also have announced their intention to carry the case to the United States Supreme Court. What other or further opinions of the courts may be forthcoming, of course, is not known at this time. The point is that five years of effort under existing statutes and regulations and with the Board and the Courts have not produced a solution of the problem and promoted good labor relations in the area.

overtime pay violations cost industry \$484,879 in back wages in 1952

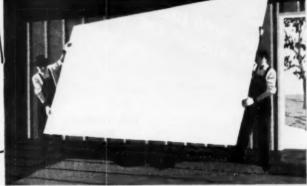
Violations of the overtime pay provisions of the Fair Labor Standards Act were the chief cause of back wage liabilities for firms in the construction industry, according to the 1952 annual report of the U. S. Labor Department's Wage and Hour and Public Contracts Divisions. The report shows that employers in the industry paid \$484,-879 in back wages to 6.918 employees as a result of the Divisions' activities. This sum does not include amounts awarded to employees who sued in court for back pay and liquidated damages.

Of the 1,323 establishments investigated by the Divisions during fiscal 1952, 59 per cent were found in violation of the overtime pay requirements. Eighteen per cent had failed to comply with the statutory minimum wage. The Divisions found violations of the Act's child-labor provisions in 3 per cent of the investigated establishments.

This record, and the fact that 62 per cent of the establishments investigated had violated one or more of the basic provisions of the Fed-(Continued on page 122)

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Our know-how in the field of down-to-earth building practice comes from 43 years' experience in serving architects, designers and build-

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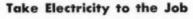
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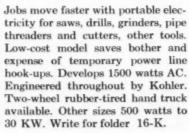
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Independent Source of Electricity





MODEL 1.5M25, 1500 watts, 115 volts AC. Manual control. Handles for carrying. Length 20", width 16", height 20", weight 130 lbs. Also 115 volt DC weighing 101 lbs.

Kohler Co., Kohler, Wisconsin. Established 1873

OF KOHLER

PLUMBING FIXTURES . HEATING EQUIPMENT . ELECTRIC PLANTS AIR COOLED ENGINES . PRECISION CONTROLS

(Continued from page 120) eral Wage and Hour Law, should not be considered representative of compliance by the construction industry as a whole, however. The Divisions' policy is to make investigations on a selective basis. Efforts are concentrated where complaints have been made or general information indicates that violations will probably be found. Only a small proportion of those establishments hav-

ing employees covered by the law are investigated.

"Most violations were due to mistaken ideas about the Wage and Hour Law's applicability to some of the establishment's employees," Administrator McComb of the Wage and Hour Divisions reports. "Complete understanding on the status of every employee would eliminate the chance of having to make unexpected back wage payments.'

A request to the nearest regional or field office of the Divisions will bring a prompt reply to any employer who is in doubt about the application of the Fair Labor Standards Act to his employees.

annular-threaded linoleum underlay drive screws



To make your linoleum underlays hold tightly and lie flat permanently, secure them with Hassall annular-threaded linoleum underlay drive screws. They are cement-coated for maximum gripping power. Heads are flat countersunk type. Size: 114" x #3 gauge. State quantity when writing for prices to:

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SURE LOOK FOR THIS CHILLING CO YSSHONED U.S. PAYLOFF. MARX MIL The American YIIII WWIIIY lustituite, luc COMMERCIAL STANDARD CS 190-53 EFFECTIVE JANUARY 15, 1953 CS 190-53, "a Commercial Standard for Standard Stock Double-Hung Wood Window Units" as promulgated by the U. S. Department of Commerce, Commodity Standards Division, is a long step forward in the direction of public assurance of quality in building materials. This standard is identical with the Minimum Specifications under which The American Wood Window Institute, Inc. has been operating for many months past. Therefore, when the AWWI Quality Seal is found in the inside sash run at the top of the frame of a double-hung wood window unit, it means that that unit meets CS 190-53 by laboratory certification and is quality approved by The American Wood

AWWI Seal Windows are Laboratory Tested and Certified

Before the AWWI Quality Seal can be affixed to a wood window unit, the prototype or pattern from which that unit is fabricated must have been laboratory tested and certified to meet or exceed the AWWI Minimum Specifications. Then the fabricator of that unit enters into a contractual Licensee Agreement with the Institute which permits him to affix this seal on all units built exactly as the prototype which met the specifications.

Since the AWWI Minimum Specifications and CS 190-53 are identical—then the affixing of this seal automatically **certifies** by laboratory test that that unit meets or exceeds the new Commercial Standard.

America is Quality Minded about Building Materials

More and more now, architects, builders, lending institutions and the public are demanding quality in building materials. The AWWI Quality Seal, therefore, is a very useful and important "yardstick" which now can be applied to doublehung wood window units. When a unit bears this seal, all can be assured that it is a high quality double-hung wood window unit meeting or exceeding CS 190-53—is quality approved by The American Wood Window Institute—and that the fabricator whose number appears on each individual seal stands behind that unit.

If you are a fabricator of a high quality double-hung wood window unit and wish to qualify it to bear the AWWI Seal, kindly write to address below for full information.

Window Institute, Inc.

The American WOOD WINDOW Institute, Inc.

2012 N APLE AVE. A SALLAR, 1824B to the public encepting of found by the Meders, Presents Could'd WOOD WINDOW Unit.

ask the Opports about

pole construction technique

We are planning to build a shed, approximately 30 x 40 feet, using pole construction, which should be about 22 to 24 feet high. Will you please advise us who we may contact on information concerning this type of construction.

C. J. K., Indianapolis, Ind.

There are many ways of framing a 30 foot wide pole frame building and the choice will depend somewhat on the use of the building. For greatest flexibility, either trussed rafters or trusses, purlins and rafters can be used to span the entire 30 feet. At the eave, they are supported on girts which are nailed to the poles. The side walls are built very much like a fence with horizontal nailing girts spanning from pole to pole and siding applied vertically to the girts. The size of the poles and framing members will vary with the spacing and load requirements. Ordinarily, the poles are set about four feet in the ground and oftentimes on a concrete footing.

Another method is to set three rows of poles with one at the middle and one at each eave. Girts applied to the poles at the ridge and eave support the rafters in the conventional manner. While this method is simpler to construct, the row of poles at the center may limit the use.

For more complete information and technical assistance, we suggest that you contact one of the following organizations: county agent or state agricultural college, building material dealer or farm management groups.

attic insulation

We are planning to insulate an attic so it can be usable in a limited way. We propose to carry the insulation from the eaves to the ridge. However, people we have talked to, and information we find in manufacturer's literature insist on providing a triangular prism of potentially hot or cold uninsulated space between the future ceiling and the roof, ventilated with loweres at each end.

Would ventilation be required if the insulation were carried all the way up to the ridge? Later, when rooms are added, should they be insulated along ceiling and walls if the entire roof area has already been insulated as outlined above? Is it necessary for the insulation to be applied close to the roof, or

Planning

Concrete Work

Framing

Roofing

Heating and Plumbing

Air Conditioning

Wiring

Insulation

■ Interior Finish

Power Equipment

should an air space be left for ventilation?

A. S., Charlottesville, Va.

I would suggest that you lower the ceiling line in order to provide an area above the ceiling to the roof for ventilation purposes. A louvre at each end of the house should be provided in the exterior walls. The larger this louvre is the better the circulation will be. Without the possibility of air circulation, the insulation would not be very effective. Ventilation would still be necessary if the insulation were carried all the way up to the ridge.

The proper way to install the insulation would be to place it in the side walls and then follow up the slope of the roof up to the point of contact with the ceiling line. Then carry the insulation across the ceiling area. It would be best to keep the insulation as close to the inside face of the roof rafters as possible, leaving the balance of the area between the insulation and the top of the roof rafters for the circulation of air. A continuous vent in the soffit of the roof overhang at the wall line would help the circulation.

mixing paint

I have several shingling jobs to do, and one building has to be shingled with green cedar shingles. I have been informed that I could dip the regular cedar shingle in a mixture of one gallon of paint, one gallon of oil and one quart of thinner.

W. F. S., Sherwood, N. Dak.

We do not feel we can endorse your formula which is predicated upon X paint quality. Instead, we can only recommend the use of especially formulated stains of reputable manufacturers which are designed to give the best results and service.

Stained Shingle & Shake Assn. (Continued on page 126)

GOT a problem you haven't solved? Can't solve? Haven't the time to solve?

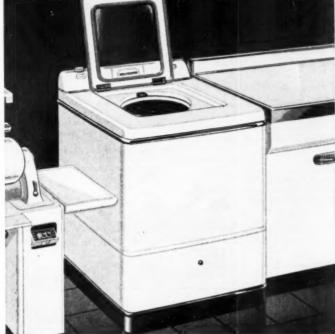
Have you solved a problem with an answer you aren't sure of? Are you doing some particular job—big or little in a way that you think might be improved?

Then "ASK THE EXPERTS"—a group of industry authorities—experts in their fields. They'll give you the answer.

Address your questions to: "Ask The Experts," American Builder, 79 West Monroe St., Chicago 3, Ill.

As many questions and answers as space permits will be published monthly in *American Builder*, under the head—"Ask The Experts."

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Better for the Homemaker because of these Superior Washing Features!

- 1 Shampoo Washing—It's different! It's better! Washing begins while the tub is only half-full of water and rich creamy suds are at full strength. This pre-sudsing loosens even ground-in dirt and grease.
- 2 "X-Centric" Agitator—As the washer slowly fills, Kelvinator's "X-Centric" agitator gently lifts and turns clothes, moves them round and round, flexing them back and forth between soft rubber fins.
- 3 Overflow Rinsing—The washer triple-rinses the clothes! Efficient "over-flow" rinsing floats dirt and soap scum over the top of the tub. Wash water does not drain through the clothes.

New Automatic Washer

Here's a Great New Sales Feature for your homes because Kelvinator

★ Washes dirty clothes really clean . . .

★ So gently . . . it's safe for finest underthings

When women see this new Kelvinator in operation—they are really impressed! For here at last is everything they want in a washer! Not only superb "Shampoo Washing" action that gets the grimiest work and play clothes clean . . . but gentle action, too, that safeguards filmiest garments.

Clothes emerge tangle-free, clean, color-bright like new. Yet less water is used because water temperatures are thermostatically controlled by a regulator dial to assure the *ideal* temperature for various types of fabrics. Yes, your prospects will recognize in this new Kelvinator Automatic a symbol of the quality inherent in the homes you build. So to help *clinch* sales . . . specify Kelvinator. For further information write to Dept. AM-6, Kelvinator, Division of Nash-Kelvinator Corporation, Detroit 32, Michigan,

Better for the Builder because of these Superior Design Features!

- No gears to get out of order—the new Kelvinator has the simplest yet sturdiest mechanism of any automatic washer.
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- 4 No special plumbing required. Flexible water and drain couplings permit inexpensive installation almost anywhere.

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IT'S TIME TO GET KELVINATOR ... AND BE YEARS AHEAD

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ask the Opports

(Continued from page 124)

estimating from the ground

Do you know of any method of measuring a pitched roof from the ground?

C. J. N., East Hartford, Conn.

These steps are required to estimate roof areas from the ground:

1. Determine pitch of the roof (or slope in inches of rise per foot of run). 2. Measure the horizontal area cov-

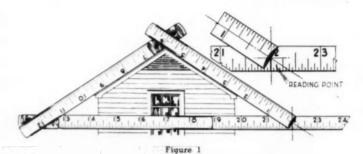
3. Obtain the slope area of the roof from a table which converts horizontal area to slope area for any given pitch.

Pitch and horizontal area can be measured from the ground.

1. To Determine the Pitch

Form a triangle with a carpenter's rule. Stand across the street and hold

(Continued on page 128)

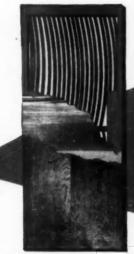


19 20 22% 22.7/8 193/4 BAR F BEADING 194 19 2036 2034 21 2116 21 % 2256 18° 24 DEBREES 6°19 20016 24.24 22*37 1/6 5/24 3/4 2/3 1/2 1/24 FRACTIONS RISE - INCHES PER FT 5. 12" 11" 10"

Table A-Reading point converted to pitch

RISE Inches per foot of horizontal run PITCH Degrees Fractions CONVERSION FACTOR	4* 18° 26' 1/6 1.054	5" 22" 37' 5/24 1.083	6" 26" 34" 1/4 1.115	7" 30" 16' 7/24 1.157	8" 33° 41' 1/3 1.202	9" 36° 52' 3/8 1.250	10" 39" 48' 5/12 1.302	11° 42° 31° 11/24 1.356	12° 45° 1/2 1.414	14* 49° 24' 7/12 1.537	16" 53" N' 2 3 1.667	18* 56° 19' 3 4 1.803
HORIZONTAL (Area in Sq. Ft. or Length in Feet)												
1	1.1	1.1	1.1	1.2	1.2	1.3	1.3	1.4	1.4	1.5	1.7	1.8
2	2.1	2.2	2.2	2.3	2.4	2.5	2.6	2.7	2.8	3.1	3.3	3.6
3	3.2	3.2	3.4	3.5	3.6	3.8	3.9	4.1	4.2	4.6	5.0	5.4
4	4.2	4.3	4.5	4.6	4.8	5.0	5.2	5.4	5.7	6.1	6.7	7.5
5	5.3	5.4	5.6	5.8	6.0	6.3	6.5	6.8	7.1	7.7	8.3	9.0
6 7	6.3	6.5	6.7	6.9	7.2	7.5	7.8	8.1	8.5	9.2	10.0	10.5
7	7.4	7.6	7.8	8.1	8.4	8.8	9.1	9.5	9.9	10.8	11.7	12.
X 9	8.4	8.7	8.9	9.3	9.6	10.0	10.4	10.8	11.3	12.3	13.3	14.
9	9.5	9.7	10.1	10.4	10.8	11.3	11.7	12.2	12.7	13.8	15.0	16.
10	10.5	10.8	11.2	11.6	12.0	12.5	13.0	13.6	14.1	15.4	16.7	18.
20	21.1	21.7	22.4	23.1	24.0	25.0	26.0	27.1	28.3	30.7	33.3	36.
30	31.6	32.5	33.5	34.7	36.1	37.5	39.1	40.7	42.4	46.1	50.0	54.
40	42.2	43.3	44.7	46.3	48.1	50.0	52.1	54.2	56.6	61.5	66.7	72.
50	52.7	54.2	55.9	57.8	60.1	62.5	65.1	67.8	70.7	76.9	83.4	90.
(60)	63.2	65.0	67.1	69.4	72.1	75.0	78.1	81.4	84.8	92.2	100.0	108.
70	73.8	75.8	78.3	81.0	84.1	87.5	91.1	94.9	99.0	107.6	116.7	126
80	84.3	86.6	89.4	92.6	96.2	100.0	104.2	108.5	113.1	123.0	133.4	144.
90	94.9	97.5	100.6	104.1	108.2	112.5	117.2	122.0	127.3	138.3	150.0	162
100	105.4	106.3	111.8	115.7	120.2	125.0	130.2	135.6	141.4	153.7	166.7	180
200	210.8	216.6	223.6	231.4	240.4	250.0	290.4	271.2	282.6	307.4	333.4	380
300	316.2	324.9	335.4	347.1	360.6	375.0	390.6	406.8	424.2	461.1	500.1	540
400	421.6	433.2	447.2	462.8	480.8	500.0	520.8	542.4	565.6	614.8	666.8	721
300	527.0	541.5	550.0	578.5	001.0	625.0	651.0	678.0	707.0	768.5	833.5	901
600	632.4	649 8	670.8	694.2	721.2	750.0	781.2	813.6	848.4	922.2	1000.2	1081
700	737.8	758.1	782.6	809.9	841.4	875.0	911.4	949.2	969.8	1075.9	1166.9	1262
800	843.2	864.4	894.4	925.6	961.6	1000.0	1041.6	1084.8	1:31.2	1229.6	1333.6	1442
900	948.6	974.7	1006.2	1041.3	1061.8	1125.0	1171.8	1220.4	1272.6	1383.3	1500.3	1622
1000	1054.0	1 10003 0	1118.0	1157.0	1202.0	1250.0	1302.0	1356.0	1414.0	1537.0	1667.0	1903

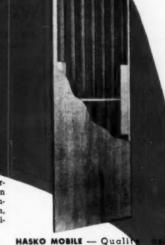
Table B-Conversion Table



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Where strength, beauty and durability are a necessity—there are Hasko Doors. The engineering features of balanced construction, gained in Haskelite's 27 years of wood lamination experience, insures you a door that is warpresistant, has long life, and is of lasting beauty. You may buy cheaper doors, but none are more inexpensive in the long run than Hasko Doors.

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HASKO ROLLER DOOR — Another new Hasko packaged unit. Comes in single or multiple sliding door K-D units. Can be easily installed in any rough opening in about a half hour.

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Grand Rapids, Michigan

"...Marlite bathrooms are the talk of the town"

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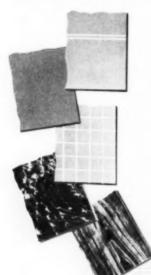




Wainstel and tub area are Rose De Brignoles Marble Panel. Wall at right (not shown) is Nat-ural Walnut Marlite Woodpanel.

This beautiful bathroom has a four foot wainscot of Verdi Antique Marlite Marble Panel for permanence and easy cleanability.

Beautiful Country Estate Homes in Midwest City, Oklahoma, sell faster with modern divided bathrooms of Marlite prefinished wallpanels. W. P. Atkinson, builder of these popular homes, is one of the originators of the famous "trades secrets" house. He states:



"We have chosen Marlite for our smartly designed homes because of its beauty, economy, and easy-to-clean qualities.

"Three of our model homes featuring Marlite in the bathrooms have been open to the public for the past sixty days, and you will be glad to know that our bathrooms are the talk of the town."

Use Marlite in your new homes, too, Its beauty, economy, low-maintenance, and wide range of "decorator correct" colors and patterns will attract and please customers. See your building materials dealer, or refer to Sweet's Architectural and Builders Files.

MARSH WALL PRODUCTS, INC., Dept. 503. Dover, Ohio Subsidiary of Masonite Corporation



for creating beautiful interiors Marlite

WALL and CEILING PANELS

ask the Opport

(Continued from page 126) the rule at arm's length, align the roof slope with the sides of the rule. being sure that the base of the triangle is horizontal. The roof will annear within the triangle as in the illustration. Take a reading on the base section of the rule. (Note the "reading point" on figure 1, page 126.)

Locate on Table A. in the top line headed "Rule Reading," the point nearest your reading. Below this point. will be found the pitch and the rise in inches per foot of run. In the case illustrated, the reading is 22, and the nearest point in the tables is 21% indicating the pitch to be eight inches rise per foot of run.

2. To Measure Horizontal Area

Measure the over-all length and width of the space covered by the roof. Multiply together to obtain the area, in this case, 748 square feet.

3. To Determine Slope Area

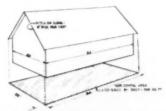
Refer to Table B. "Conversion Table." Horizontal areas are shown in Column 1 and corresponding slope areas are given in columns 2 to 12. In this case the slope area is found by breaking down the horizontal area.

Horizontal Area

8 + 40 + 700 = 748

9.6 + 48.1 + 841.4 = 899.1

Opposite the figure 8 in column 1 will be found the corresponding figure in the column headed 8 inch rise, which is 9.6; and opposite the



Horizontal area covered by roof

figure 40 in column 1 will be found the figure 48.1 in the column headed 8 inches, Opposite 700 in column 1 will be found the figure 841.4 in the column headed 8 inches rise.

Add these to find that the slope area is 899.1 square feet or 9 squares.

To allow for waste in applying the roofing a 10 per cent additional amount of material is usually provided. In this case 10 squares would certainly be a safe estimate.

(Continued on page 130)

You can build homes that will last longer with low-cost American Welded Wire Fabric





• You can increase substantially the sales appeal of your new homes with just a few dollars invested in American Welded Wire Fabric. It reduces maintenance costs and protects all concrete slabs from destructive cracking.

Concrete foundation slabs and walls last several times longer when they are reinforced with this prefabricated reinforcing steel. It binds the concrete into a solid unit and distributes the load on it evenly. As a result, cracks, warping, and sagging—common causes of early deterioration in homes—are greatly reduced. American Welded Wire Fabric also keeps sidewalks, curbs, and driveways smooth and good looking for many years.

These are important advantages to every home buyer, and it's easy for you to offer them this extra value. American Welded Wire Fabric comes to you in convenient rolls that make it easy to handle and install. And it takes very little storage space on the job. Local jobbers and dealers can supply it quickly in any size and type you need.

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INSULATED PANEL — Panel is insulated with Cellufoam and protected with tough chip board.

SAFETY TREAD — Each step is covered with full-width composition safety treads. Adds to appearance as well as safety.

FITS ALL CEILINGS — The stairway fits any ceiling from 7 feet to 9 feet, 9 inches figured from finished floor to finished ceiling. Runners are graduated to facilitate cutting off at different heights. Two standard sizes: 8'9" fits from 7' to 8'9" ceiling, 9'9" fits from 8'9" to 9'9" ceiling.

EASY TO HANDLE — Shipped in 1 package assembled. Precision Stairways are packed completely in one heavy carton, assembled complete with jamb and ready for installation, which offers a considerable savings over other attic stairways. Shipping weight 130 pounds.

EASY TO INSTALL — No adjustments — No springs — Requires no attic space. Full height above attic floor is only 36". Folds completely into 26" x 54" opening in ceiling.

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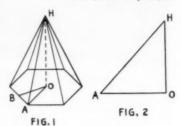
ask the Opports

(Continued from page 128)

field mathematics

I would appreciate it very much if you can give me some advice on how to figure the length of hip rafters, jack rafters and main rafters mathematically. These are to be used in building roofs in the form of a pentagon, hexagon, octagon or any shape that might come up.

F. P., Philadelphia, Pa.



In order to determine mathematically the length of the hip rafter AH as shown in figure 1 of a hexagonal roof (or any shape plan) first measure the length AO. The height OH if not known is set. This produces a triangle AOH as shown in figure 2. The length of the hip rafter AH, is

 $AH = \sqrt{OH^2 + AO^2}$

Likewise a line drawn from H to B would represent a main rafter OH, the height is known. Measure the distance BO.

The distance BH = $\sqrt{\text{OH}^2 + \text{BO}^2}$ A jack rafter halfway between A and B would be one half as long as BH, and likewise a jack rafter placed one third the space along AB would be one third as long as BH.

see an architect

Could you please send me some information on a concrete block warehouse, size 40 x 80 feet? I need information as to the footing depth and roof design. Could you tell me where I can obtain blueprints for this type of construction?

E. S., Aurora, III.

I believe that the proper procedure in connection with a building of this size and nature, would be first of all to contact a local architect and have him prepare sketches on the type and design of building that you need. With that as a start the architect would have no trouble at all determining the footing depth and type of roof design and trusses that would be required. It would be next to impossible to obtain a stock plan for the type of building you describe.

In the CAPITAL and CONNECTICUT

there's a "family" resemblance...





▲ "Even in low to medium-priced homes," say builders Brisker and Campitelli of Washington, D. C., "Electric Ranges never fail as a sales booster. People at first thought this de luxe equipment wasn't possible in the low-cost field—but we're still including electric kitchens because it pays!"

▼ "I find that a home buyer tells a prospect about my houses," says builder Joe Yost of Fair-field, Conn., "and the next thing I know that prospect becomes another customer. One important thing that gets people talking is the Electric Range in the kitchen—because that's the kind of range so many people prefer nowadays."



Locations differ, houses vary—but home buyers seem to agree on one wanted feature—the *Electric* Range in the kitchen! They've learned that cooking with an *Electric* Range is both economical and easy, and assures a clean, cool kitchen. Are you taking advantage of this preference in the homes you build? No matter what their location or price bracket, the modern Electric Range can help you sell more houses, faster!

Most people don't expect to find a kitchen like this in a moderately priced home. But while these homes by Brisker and Campitelli may vary in other features, all include the 4-appliance electric kitchen. And the range? Of course, it's ELECTRIC!

More builders every day

are installing

ELECTRIC RANGES

ELECTRIC RANGE SECTION

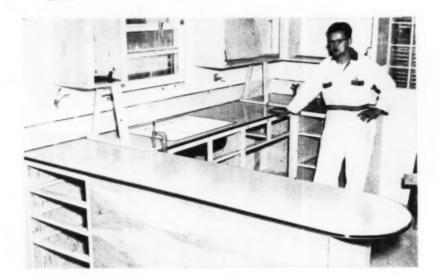
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technical guide

for builders and craftsmen



COUNTER TOPS — how to apply them on the job

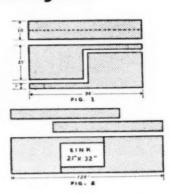
Most counter tops can be cut economically out of 4x8 foot panels as the illustrations indicate. Figures 1 and 2 in the drawings show how a counter top 25 inches wide and 128 inches long with only two small butt joints can be cut from a single 4x8 foot panel. This provides for a 10 inch high back splash up to 192 inches in length. A high back splash is desirable, both from an appearance and maintenance standpoint. The few extra minutes spent in planning the job before cutting, pays big extra dividends in materials saved.

Measure, Mark and Cut Panels

Mark cutting lines on plastic face with fountain pen for easy cleaning. Cut the plastic with an electric hand saw. Back splash panels should be cut to exact size, counter top panels should be cut about one-half inch larger each way to allow for proper fitting. Inside cuts are made by lowering saw blade into the panel.

Cut and Mitre Cap and Cove Mouldings

Cut and mitre cove mouldings and tack in place on the plywood base. Cut off one inch of flange on each end of corner, mouldings. Fit back splash panels into cove moulding and draw pencil line on wall, marking height (Continued on page 134)





There's a MILLION square feet of Insulation stored in that 10' x 15' shack!



ORDINARY INSULATION WOULD TAKE 140 SUCH SHACKS

Storage problems and waste are drastically reduced for contractors, builders and dealers, both at the building site and on their own premises, when they use multiple accordion aluminum insulation. While 1000 sq. ft. of ordinary insulation sometimes weighs a ton and usually occupies 25 cartons of 175 cu. ft. in all; one standard carton of multiple accordion aluminum, such as Infra Type 4, holds 1,000 sq. ft., weighs 46 lbs., and occupies 1½ cu. ft. Warehousing, transportation and handling bills are naturally insignificant in comparison.

Multiple accordion aluminum's slight mass, scientific compartmentation, and zero permeability to water vapor are decisive in protecting buildings against destructive condensation. The "warm" side of multiple accordion aluminum insulation, and each component layer almost immediately assumes the temperature of the air

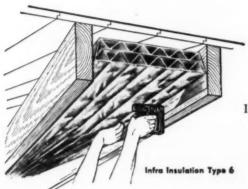
in contact. The "cold" side remains a trifle warmer than the air *it* contacts, thereby raising its dew-point. With no dew-point attainable, condensation is prevented.

The light-weight but tough aluminum sheets, and the automatic and permanent compartmentation combine to bar unwanted heat loss or intrusion. The metallic sheets throw back the heat rays at a 97% rate, emit at 3%. Their insignificant mass and the nonconductivity of the air layers prevent conduction flow. The construction has 5 integral barriers to convection.

A popular commercial form of multiple accordion aluminum is Infra Insulation, Type 6. With sufficient practice, a man can install 2,000 sq. ft. a day. The cost of installation, in new construction between wood beams, material with labor, is less than 10¢ sq. ft.

INFRA THERMAL FACTORS, TYPE 6

Up-Heat C.089, R 11.23 = 43/5" dry rockwool
Wall-Heat C.073, R 13.69 = 55/8" dry rockwool
Down-Heat C.044, R 22.72 = 9" dry rockwool



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Firm_	
Kind o	of business
Addre	SS

technical guide

for builders and craftsmen

(Continued from page 132)

of cap moulding. Tack cap noulding to wall. If moulding is not slotted, notch out with moulding notcher,

Preparing for Butt Joints

Where panels join on the back splash the following method is used. Cut wood shims, 1/16 inch thick, 3 inches long and 1 inch wide from scrap wood. Tack these to the back wall, centering the spot where the butt joints will fall. Then coat the wood shims with glue before applying the backsplash panels. The shims tie the ends of the panels together making a butt joint that will not separate.

Apply Adhesive and Install Back Splash Panels

After filling moulding slots near sink area with waterproof caulking compound, apply adhesive to back of panels, leaving a four-inch area at shims clear. Place panels in cove and corner mouldings and press firmly to insure bond.

Top Cap Moulding

Cap mouldings into position by using a small block of wood and a hammer. If mouldings have a tendency to spring up at ends, drive a small linoleum pin below edge of cap moulding.

Top Surface Scribed to Fit

Place rough cut top panels into position in cove mouldings. If corners are not square, scribe and trim them accordingly with an electric saw. Clamp large panels in position while scribing and cutting.

Clean Surface and Apply Adhesive

The surface of plywood must be dry and clean. The surface and adhesive must be 70 degrees F. or above. Spread an even surface of adhesive with a notched spreader, being careful to get an even coverage. Do not wait over ten minutes after spreading adhesive before applying panel, as the adhesive will begin to set up by this time.

Apply Panels to Counter Top

After filling cove mouldings near sink area with waterproof compound, slide the plastic panels into position into the mouldings and then rub the panels firmly, working from the center to the edges to assure over-all bond.

Edge Mouldings Quickly and Easily Installed

A hold-down type of edge moulding is used with a plastic insert strip covering the screws. Start at one end of the counter top and screw the moulding down as the



Data and photos courtesy of the Woodall Industries, Inc.

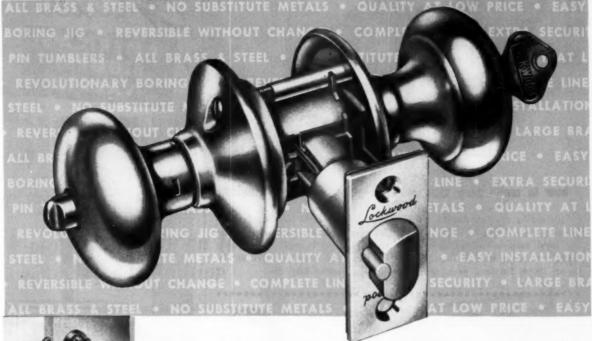
work progresses. After moulding is applied, insert plastic face strips in position.

Clean Surface-Shore Joints

Carefully clean the plastic surface with a solvent to remove any excess adhesive, then weigh down the wide butt joints, first covering them with a scrap piece of plastic. Leave shoring and clamps on for 24 hours to insure a perfect trouble-free job.

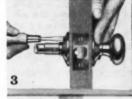
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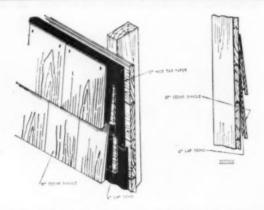




LOCKWOOD HARDWARE MANUFACTURING CO.
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how would you do it?

ideas for the man on the job



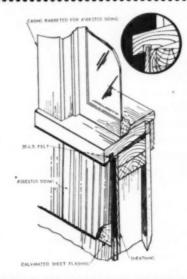
how to make deep shadow lines using sidewall shingles

Lap siding that cannot be used for finish work can be utilized for the deep undercourse of sidewall shingles to make shadow lines. Tar paper strips between each course make a good tight job. The lap siding undercourse speeds the job as the lap siding is applied faster due to the long lengths.—Arthur N. Nelson, Kansas City, Mo.

weathertight windows

The bottom of the window sill is plowed wide enough so that a piece of 4-inch galvanized flashing and the edge of the siding can be fitted into it. The top edge of the siding is covered with a strip of 30-pound felt before it is placed in the groove. The felt is cut with a sharp knife after it is in place.

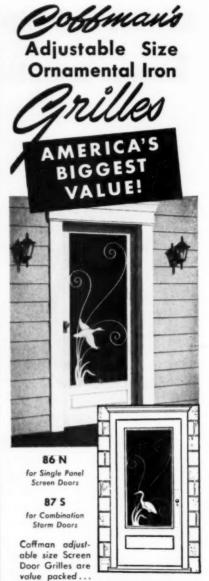
The edge of the casing can also be rabbeted about 3%-inch square so that the edge of the siding can be slipped underneath. Caulking completes the operation.—F. W. Gruber, Lindsay, Texas.



safer glass block installation

A rubber crutch tip slipped on the edge of a trowel handle goes a long way in preventing damage when tapping glass blocks into place.—Myron G. Miller, South Williamsport, Pa.

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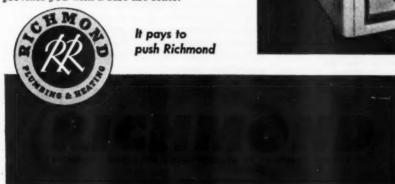
RICHMOND SR-G

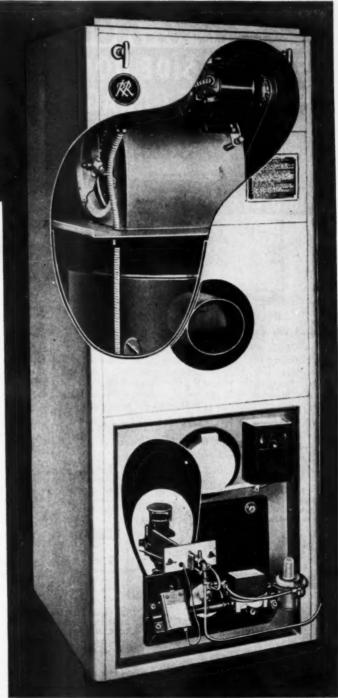
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Piegse send me additional information on the new Richmond SR-G counterflow unit. No obligation, of course.
NAME
COMPANY
ADDRESS
CITYZONESTATE
We are plumbing wholesalers plumbing contractors building contractors.







Drive in Easily..... without Bumping!

Hinged side doors in home garages are always in the way.

Now, Sterling offers an easy solution to this problem. The new Sterling No. 890 Sliding Door Set is designed especially for sliding side doors in home garages. Here is a side door that is never in the way as it slides along the wall. The door can be made as wide as desired so lawn mowers and large equipment can be taken in and out of the garage easily!

Here is The Package!

Sterling No. 890 Sliding Door Set

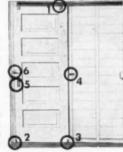


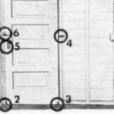
Adjustable Hangers with Track for doors up to 3' wide



2 Edge Guide alians door in closed position and makes it se-









3 Floor Guide eliminates need

for track on the floor. No groov-

ing of doo

Back

permits full doo

opening, yet pro-

tects fingers and

Stop

Other STERLING PRODUCTS

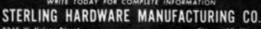
. RESIDENTIAL SLIDING DOOR HARDWARE



Nationally Advertised,

* See our Catalog in Sweet's Architectural File and Builders' file * Visit our Display at . . .

The Architects Samples Corp., New York City WRITE TODAY FOR COMPLETE

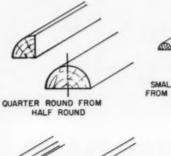


2345 W. Nelson Street

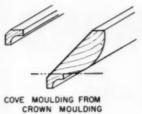
Chicago 18, Illinois

how would you do it?

ideas for the man on the job





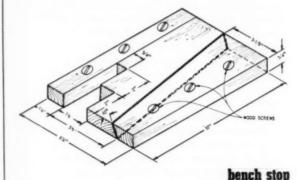




SMALL MOULDING FROM DOOR STOP

small moulds made from large members

The small section of moulding that is needed is often cut from larger sized moulds, thus saving a trip to the lumber yard and loss of time. There is usually a variety of mouldings in most shops so that the size and shape required can be found.—Arthur N. Nelson, Kansas City,



The bench stop is made from hard 3/4-inch stock. The center slide should be cut on an angle. Its bevel cut is 25 degrees. The stop is so designed that it will take care of most bench operations. The center slide can be removed for units over 13/4 inches.-E. G. Lachapelle, Canterbury, Conn.

protect your folding rule

The numbers from one to six wear out on my rule while the other five feet remain in good condition. Not long ago I solved this problem in such a simple way I wonder why I hadn't thought of it sooner. I stuck a piece of cellophane tape over the first and last six inches. It protects the rule.-J. R. W. McCaig, Bellmore, N.Y.

weigh this window against any other!

- Extra Weight
- Extra Strength
- Extra Features
 give EXTRA VÁLUE

to this competitively priced



HEAVIER!-A full 30% heavier than other awn-

STRONGER!-Because it has extra weight, it has

extra strength to meet more rigid requirements.

Sturdy 2-3/16" sections stand up under heavy

The 3/16" Ventilator Web is thicker than on

No rusting, rotting, or warping-and the low-

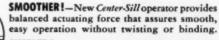
ing windows in the same price range.

loads and heavy usage.

any competitive window!

est possible maintenance cost.





SIMPLER!—No chance of costly mistakes from right and left-hand operator problems. Just one operator, conveniently in the center.

Gears come sealed in oil, impervious to dirt and atmosphere.

Smart tilted crank clears any stool regardless of width. Also clears Venetian blinds in closed position.

Compare the features and the cost, and you'll see why Ware Windows are first choice for extra value from coast to coast! Take advantage of Ware quality and value for all your window requirements. See Sweet's Catalog or write Dept. A-6.

Aluminum 3 2 2 Windows















Econ-O-Wall



Ware Laboratories, Inc., 3700 N.W. 25th St., Miami, Florida

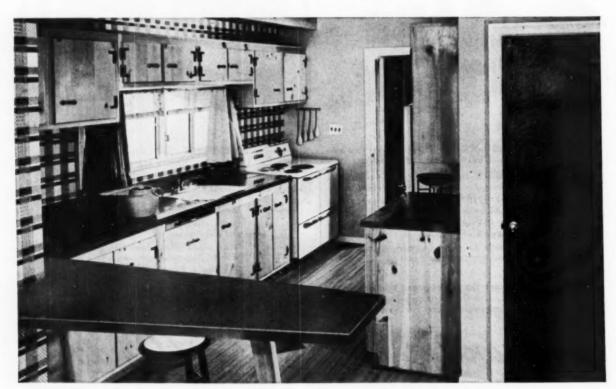


"In East Meadow, we sold well over 200 houses with G-E Kitchens in 4 months!"?



"In New Hyde Park, we sold 300 houses with G-E Kitchen-Laundry equipment in 12 months!"

Are you selling your FULL share



In this G-E Kitchen-Loundry, (A Klein and Teicholz Fawn Ridge development) there's a worksaving General Electric Dishwasher, a pushbutton G-E Electric Range, and a spacious 11-cu-ft G-E Refrigerator.

And in the timesaving laundry there's a G-E Automatic

Clothes Washer and General Electric Dryer.

When prospects see matched General Electric appliances in houses, they are delighted, and they associate the quality of the appliances with the entire construction of your houses. G-E equipment helps to sell houses faster!



"In Fawn Ridge, we sold 40 houses with G-E Kitchen-Laundry equipment in 4 months!"

"Matter of fact—all 1050 of the houses we built these past three years sold faster because they were General Electric equipped!"—says Mr. Kalman Klein of Klein and Teicholz, New Hyde Park, L. I., N. Y.



Mr. Kalman Klein of Klein & Teicholz

of houses today?

Houses have much greater appeal when women see all the wonderful, timesaving General Electric Kitchen-Laundry equipment, and learn that it adds as little as \$6.00 a month extra to regular monthly mortgage payments!

Even in areas where some new houses are moving slowly, a builder comes in, erects houses, equips them with General Electric Kitchen-Laundry equipment and sells them fast... while others remain unsold.

Why?

One reason is that most women want—and expect to find—convenient, timesaving kitchen and laundry appliances in their new homes.

Prospects are more quickly sold on the house, too, when these appliances bear the General Electric name plate. More women prefer General Electric appliances than any other make.

And here's a trump selling-point: The buyer pays only as little as \$6.00 a month more on his regular monthly mortgage payments for the G-E Kitchen-Laundry.

We shall be glad to work with you, too!

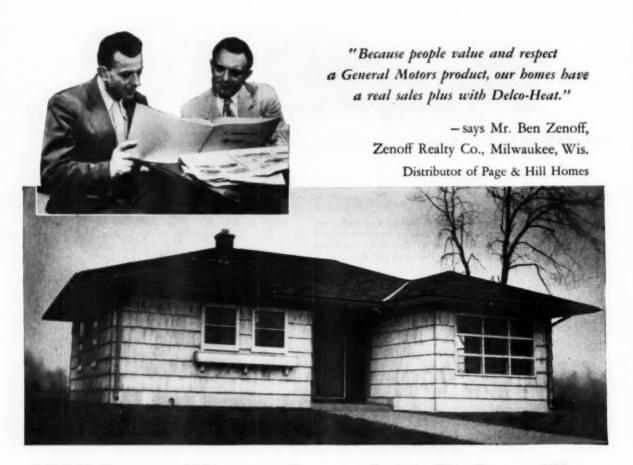
Your G-E distributor builder specialist will work with you, and place at your disposal, all the sales experience of the General Electric Home Bureau.

He has complete promotion plans for the opening of your model house—plans that have so successfully helped other builders sell their homes faster. Lots of other important helps, too, such as the "Young America" Home Program featuring houses designed by Victor Civkin, AIA.

Never before has any manufacturer presented any builder with such a complete promotion program to help him merchandise his houses. Better get the facts today. Address: Home Bureau, General Electric Company, Louisville 2, Ky.

You can put your confidence in-





1000-home Wisconsin project finds selling easier with General Motors Delco-Heat

arbor View Village in St. Francis, H Wisconsin, adds another name to the big list of building projects that are finding the going easier with Delco-Heat. Shown above are Mr. Ronald Waldorf, left, of Waldorf Heating & Sheet Metal Co., who is making these Delco-Heat installations. At right is Mr. Ben Zenoff, who goes on to say, "I can give the homeowner the best in automatic heating economically with Delco-Heat, and it actually makes the home easier to sell. I am especially sold on the way the local Retail Distrib-

utor makes a new house installation."

At right is a typical installation of a Delco-Heat OPC-75H oil-fired Conditionair in one of these homes. Discover today how the famous General Motors name and Delco's reputation and national advertising add real buyer acceptance for your homes. For warm air, hot water or steam installations gas or oil fired-for every kind of heating problem, contact your Delco-Heat Distributor. Or write Delco-Heat, Dept. ABH, Rochester 1, N. Y. In Canada, Toronto 13, Ontario.



General Motors Engineering Delco Production Skill

For a good deal-

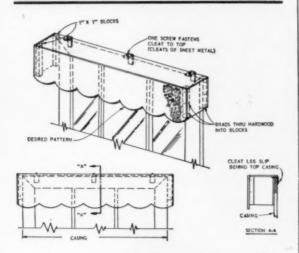
DEAL WITH DELCO RENERAL MOTORS



...your keys to Sales Success

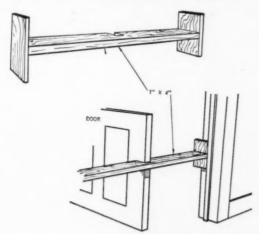
how would you do it?

ideas for the man on the job



hardboard window cornices

A low cost, lightweight, window cornice can be made in any length from ½-inch hardboard. The hardboard is fastened at the corners to one-inch wood blocks using one-inch brads. At the top the cornice has L-shaped hangers cut from heavy sheet metal (26 or 28 gauge) and attached to the cornice with one screw in each hanger. The vertical part of the hangers are slipped down between the wall and the top casing of the window frame to hold it.—A. N. Nelson, Kansas City, Mo.



simple jig for holding doors

After the door jamb is set, I take a piece of 1x4 stock and nail a 6-inch piece on each end. The horizontal piece is long enough to fit into the jamb snugly. A notch is cut to receive the door. I leave the jig in a closet door until all doors are fitted on that floor then I move the jig.—W. E. Bell, Hillside, N.J.

CASH FOR JOB SHORTCUTS—American Builder will pay five dollars (\$5) in cash for each shortcut or job pointer accepted for publication. Send all material to the Architectural Editor, American Builder, 79 W. Monroe St., Chicago 3, III.

"Be sure of real running water under pressure with a Delco Water System"





Build in guaranteed water capacity with a

Delco Water System

Nothing can help sell a home faster, and keep it sold better, than a dependable water system that will meet all the demands for comfort, luxury and healthful living. So, when you build past the "city mains," install the proved reliability of a General Motors DelcoWater System. Every pump is test rated to deliver every gallon promised, and more ... every system is quickly and easily installed and designed for lasting peak performance. Here's top quality guaranteed to keep home buyers happy; yet priced low to save you money.



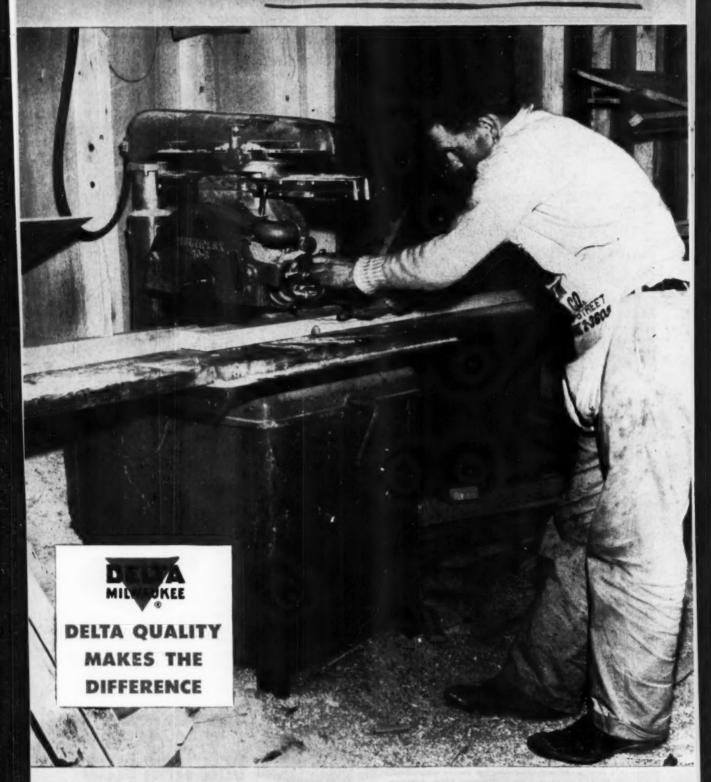
This convertible jet pump is super-simple, super-power-ful. Converts quickly to deep well operation if water table falls. For complete information about all pumps, contact your Delco Dealer. Or write: Delco Water Systems, Dept. ABW, Rochester 1, N.Y.



for a good deal

DEAL WITH DELCO

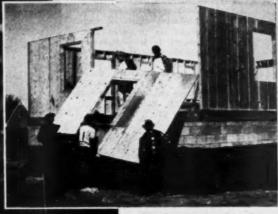
Our DELTA Radial Saw Saves us



"Our Delta radial saw cuts practically anything," says Herman Horstman, Jr., "and saves 25% over portable power tools." Exclusive 360° turret action makes cutting faster, easier, safer.

25% over portable power tools

says HERMAN HORSTMAN, JR., Horstman, Inc., Erie, Pa. Home Builder



A wall section goes into place—a precision fit. Three men in the shap cut a complete house in a day, with the Delta radial saw; and four men erect a home, ready for rock-lath in two days!



On-the-job sawing center builds profits for Metcalfe-Hamilton, Konsas City builders. Close up shows typical sawing shed at apartment house project. Delta radial saws, because they are more versatile, make more cuts, need less maintenance, are ideal for construction work.

City_

"With our Delta radial saw and three men working in the shop we turn out a complete pre-engineered house in a day," says Horstman. "That saw cuts everything—rafters, gables, cornices, trim, stair pieces, studding, window mouldings and more; and has paid for itself many times over."

Careful cost analysis proved to Horstman that the Delta saw would do a better job than portable tools or conventional carpentry. "Delta accuracy has proved just as important as the laborsaving it brings about," says Horstman, Jr.; "Wall sections and partitions fit with precision; and wastage has been virtually eliminated—a vital saving."

Isn't it common sense to find out how alert building firms are boosting profits by utilizing the speed and accuracy of Delta tools? Easy enough—simply send for complete data on Delta radial saws—and talk to the Delta dealer, listed in your classified telephone directory under "Tools." Use the coupon for latest catalogs.

DELTA QUALITY POWER TOOLS

Another Product of Rockwell



_ Zone___

___ State_

Delta Power Tool Division
Rockwell Manufacturing Company
646+ N. Lexington Avenue, Pittsburgh 8, Pa.
Please send me full catalog data on Delta Radial Saws

Name_____Title_____

Company

Address

Now you can Choose AIR-KING Ventilating Fans...

for every purpose
— in any size
and price range



wall switch controlled

low cost model AUTOMATIC SIDEWALL

Now available at the same price as pull chain models! Weatherproof outside hood protects against ice, snow, wind and rain—encloses scientifically counter-balanced, exclusive "Flutter-Free" shutter that automatically opens and closes when fan starts and stops. Wall Switch controlled—single or three speed (extra). Unscrewing of center grill knob removes grill for easy cleaning. Motor and blade completely removable by merely loosening two wing ruts. In 8-inch and 10-inch models for walls 4½" to 28' thick. Sparkling white or chrome finish. Full 5 year guarantes. WF8C, WF10 and WF10C...priced as low as \$27.55





a Only 31/4" deep over-all

Only 3½* deep over Blower-type blade

• Blower-type blade

Most attractive, powerful, versatile kitchen fan available. New blower-type pressure blade maintains high air exhaust volume in long ducts. Mounts in ceiling or sidewali. Grill removes by merely unscrewing center grill knob. Outside frame will never warp or rust. Model CFBC sepecially recommended where low cost is a deciding factor. In White Enamel or Chrome finish. Available with 3-Speed Control switch (extra). Full 5 year guarantee. CFBC, CF10N and CF10NC...priced as low as \$27.95 complete with Wall Cap.



ECONOMICAL PULL CHAIN MODELS

Where wall switch is not desired, this powerful, economical pull chain model is highly efficient. Eliminates wall switch installation cost. Outer frame will never rust or warp fan housing. Grill easily removed by merely unscrewing center knob. Motor mounted on one bracket —motor and blade completely removable by lossening just two wing nuts. Available in 8" and 10" models, white enamel or chome finish for walls 53/2" to 16" thick. Full 5 year guarantee. KF8N and KF10N ...priced as low as \$27.58



Listed in Sweet's Catalog or ask your Wholesaler.

Complete catalog available by writing to

BERNS MFG. CORP. 3050 N. ROCKWELL ST., CHICAGO 18, ILL.



Catalogs -

and Manufacturers Literature

362-WINDOW CLASS-

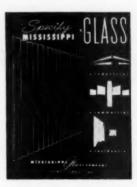
To aid engineers, contractors and others in glass selection. the functions of the manufacturers' rolled, figured and wired glass are described in this 16 page catalog. Light distribution charts of each pattern are presented. Also included is information on heat absorbing and glare reducing glass with data showing maximum sizes, thicknesses and approximate weights. Mississippi Glass Co., Dept. AB. 88 Angelica St., St. Louis 7, Mo.



364—A L U M I N U M FRAMED JALOUSIES—

This folder describes the use of jalousie window units operated and controlled by extruded aluminum "Win-Dor" hardware and frames, Hardware assembly details shown in line drawings; installation suggestions also given. Frame dimensions measure from 191/4 x27 inches to 43x87 inches, Framed units are recommended for primary windows, porch and breezeway enclosures, partitions, and other uses. The Casement Hardware Co., Dept. AB, 612 N. Michigan Ave., Chicago 11, Ill.





363-WOOD UNITS-Detail Catalog No. 531 gives specification data with installation details, tables of stock sizes, glass layouts and opening dimensions for manufacturers' casement, gliding, pressure seal double hung and "Flexivent" window units. Also included are general recommendations for leading joints, priming frame and similar installation suggestions. Line drawing details further clarify the catalog's usefulness. Andersen Corp., Dept. AB, Bayport, Minn.



365-WATER SYSTEMS

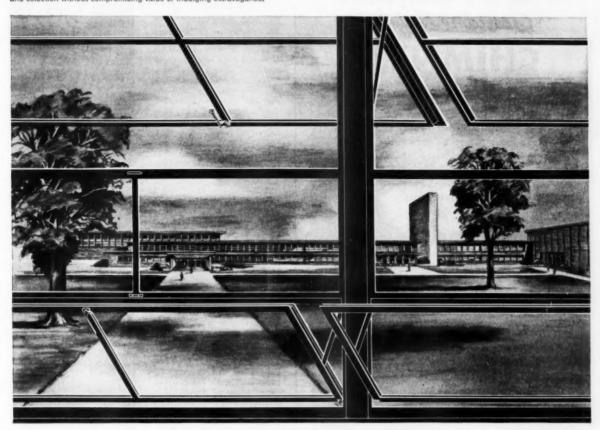
—Illustrated 50 page catalog includes manufacturers' complete line of jet and centrifugal pumps for shallow and deep wells, ejectors, sump and piston pumps and all accessories. Descriptions of individual units include cutaway drawings, complete specifications, including hydraulic and electrical capacities. Large pictures enhance catalog's usefulness to dealers. Complete index included. Flint & Walling Mfg. Co., Inc., Dept. AB, Kendallville, Ind.

FOR MORE INFORMATION USE COUPON, PAGE 174

CECO HAS ACHIEVED AN EXACTNESS IN INTERMEDIATE WINDOW DESIGN THAT MEETS THE NEED OF THE PRESENT... SETS THE PATTERN FOR THE FUTURE

It's easy to make a cheap product and it's easy to over-manufacture.

But it requires ingenuity and infinite skill to create the ideal of quality
and selection without compromising value or including extravagance.



Only CECO offers you 1½" and 1½" intermediate windows

For years Ceco engineers have been experimenting so as to give you the "just right" window.

Today we can announce mission accomplished in the two new Ceco creations . . .

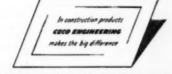
1½" Intermediate Windows and 1½" Intermediate Windows.

For here are two windows that can be adapted to any building problem where Intermediate design is indicated. The 1½" window gives you weight and strength plus beauty at a sensible price. Hardware is handsome bronze lacquer finish.

The 1½" window assures greater strength and rigidity, adequate for any need, longest trouble-free service, will outlast any structure.

New beauty is reflected in rich solid bronze hardware.

In these new windows Ceco has reached deeply into the future to bring you truly balanced design plus an innovation in simplicity . . . an exactness you can find nowhere else.



CECO STEEL PRODUCTS CORPORATION

Offices, warehouses and fabricating plants in principal cities General Offices: 5601 W. 26th St., Chicago 50, Illinois

CECO PRE-PLANNING CONSULTATION SERVICE

Ceco Product and Design Specialists will assist you in the application of Ceco building products at the pre-planning stage . . . Call your nearest Ceco office for overnight consultation service.

50,000 homes built in the past year had this mark of a better home

Van Packer Genuine Safety CHIMNEY

Easily installed by one man in 3 hours or less. Light weight. Needs no foundation. No joist or rafter cutting. Shipped complete. Nothing extrato buy. Safer! Underwriters' listed for all fuels. F. H. A. accepted. No delays! Immediate delivery. Cuts chimney costs up to 50%.



INSTALLS
IN 3 HOURS

A LIFETIME

VAN-PACKER CORPORATION DEPT. 5 • 209 5. LoSALLE STREET CHICAGO 4. ILLINOIS

Please send me your latest, complete circular on Van-Packer Packaged Masonry Chimney.

Name

Address____

City

Name of Firm

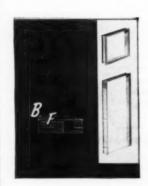
Also Manufactured and Distributed in Canada by C. A. McRobert and Son, Ltd., St. Laurent, Quebec.

Catalogs

366-WOOD AWNING WINDOWS-Portfolio contains installation suggestions, charts showing metal horizontal and vinvl jamb weatherstripping, Thermopane glaz-ing and other pertinent facts on window use. Detailed scale drawings of window installations and a useful schedule of types and sizes are included. Folio is expandable, to contain information sent throughout the year with further A.I.A. data. Gate City Sash & Door Co., Dept. AB, Fort Landerdale, Fla.









367—SIDING SHEETS-

Eight page brochure contains complete information on "Colorbestos" Siding Sheets which combine pattern and color in a large size asbestos sheet for house exteriors. Colored photographs with text indicate how the material is being used to meet modern trends in house design. Details show how "Colorbestos" is handled around doors, windows, gable ends, soffits, etc. Application, cutting and handling described. Johns-Manville, Dept. AB, 22 E. 40th St., New York 16, N.Y.



369—BUILDERSFRAMES

-Knocked down or assembled metal window frames, guaranteed waterproof in all corners, made in all sizes for steel and aluminum casement or awning type residential windows including mull units are described with line drawings, indicating installation details. Standard metal door frames, steel or aluminum liners and window fins also detailed. "Steel Seal" roof edgers, new gable roof strips, are introduced. Builders Mfg. Co., Dept. AB, 1514 Brown-Marx Bldg., Birmingham, Ala.

FOR MORE INFORMATION USE COUPON, PAGE 174

TRADEMARKED

as well as grademarked ...your double guarantee of plywood quality



The combination of APMI trademark and DFPA grademark is your assurance that regardless of where you buy Associated plywood, you get the guaranteed products of a pioneer mill in the industry.

There is a type, size and grade of APMI plywood (exterior and interior) for every building need:

Douglas fir plywood; Sea Swirl decorative plywood; Philippine mahogany faced plywood; birch faced plywood; vertical grain fir plywood.

APMI products are sold from centrally located sales warehouses, sold by experienced plywood men. Your inquiries are invited.

BRANCH SALES WAREHOUSES:

4268 Utah St., St. Louis, Mo.
4814 Bengal St., Dallas, Texas
4003 Coyle St., Houston, Texas
1026 Jay St., Charlotte, N. C.
111 Welborn St., Greenville, S. C.
925 Toland St., San Francisco, Cal.
Eugene, Oregon
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SALES OFFICES:

31 State Street, Boston, Mass. 595 E. Colorado St., Pasadena, Cal

ASSOCIATED

Sonoral Offices: Eugene, Oregon PLYWOOD MILLS AT EUGENE AND WILLAMINA, DREGON

USO FRANTZ No. 80 GARAGE HARDWARE

AMERICA'S MOST POPULAR SET OF OVERHEAD DOOR EQUIPMENT

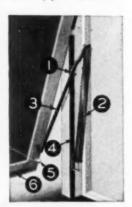


USE THIS VERSATILE HARDWARE WITH CUSTOM OR MILL-MADE GARAGE DOORS

Equally "at home" on carpenter-built or mill-made doors, Frantz No. 80 Series* overhead garage door hardware will lift any door weighing up to 150 lbs.—is a favorite with architect and contractor alike. Features (shown at right) include: (1) Automatic

opener, (2) Powerful spring which does all the lifting, (3) Sturdy formed steel arms, (4) Steel weather-stripping, (5) Positive latch, (6) Angle iron brace to prevent warping. Steel hangers and ball-bearing wheels assure smooth, quiet operation. Set comes complete with chrome handle, brass cylinder lock, track supports, braces and lags. Simple, easy to erect.

*No. 83 for doors 8'x6'6"
No. 839 for doors 9'x6'6"
No. 80 for doors 8'x7'
No. 809 for doors 9'x7'



FRANTZ GUARANTEED BUILDERS HARDWARE

FRANTZ MANUFACTURING CO., STERLING, ILLINOIS

Catalogs

370-ORNAMENTAL WROUGHT IRON-Typical installations of cornices. brackets and columns illustrating the advantages of wrought iron work are shown in this 32 page catalog, Railing, hand railing designs, baluster collars and bases and a variety of column designs are given, indicating both interior and exterior uses. Screen door grilles and all-steel designs for double doors, gate and window balcony applications are included. Tennessee Fabricating Co., Dept. AB, 1490 Grimes St., Memphis. Tonn



372-LIGHTING FIX-TURES-This 40 page catalog covers the entire manufacturers' line of adjustable lighting products; it is arranged in eight sections, covering Canopy Shade Units, Portable Units, "Vogue-Lites," Recessed Fixtures, Wiring Devices, Units for Outdoor Use, Special Units and Lighting Accessories, Well illustrated with installation photographs and line drawings, the catalog shows suggested applications of most products. Swivelier Co., Inc., Dept. AB, 43 34th St., Brooklyn 32, N.Y.





371—CABINET WARE-Two new display boards with a three-color background are described in this folder. Boards have easel backs for counter use and swing-back hinges for post, wall or counter-edge mounting, removable for outside sales use. Fronts of display boards feature matching sets of cabinet hardware. Other hardware mounted on the available in two sizes. The Stanley Works, Cabinet Hardware Division, Dept. AB, New Britain, Conn.



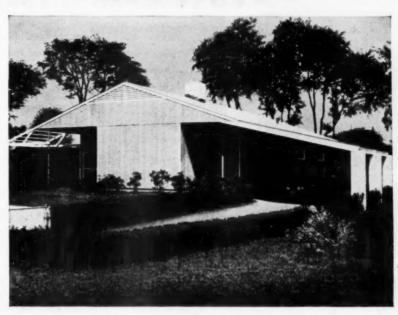
PANEL 373—CARVED DOORS-Attractive fourcolor folder illustrates ten of the 20 square carved and streamlined carved designs available for these raised panel doors; square designs measure 16x16 inches; streamlined patterns are 41x16 inches. Patterns are designed to harmonize with every architectural style and in a variety of finishes. Also shown are makers' line of wood sectional upswinging doors. Raynor Mfg. Co., Dept. AB, Dixon Ill.

FOR MORE INFORMATION USE COUPON, PAGE 174

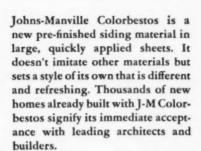
A new Johns-Manville development!

COLORBESTOS

SIDING SHEETS



Colorbestos combines for the first time beautiful color and rich texture in large asbestos siding sheets...meets the modern trend in house design and economy of construction.



Made of two practically indestructible materials, asbestos and cement, the sheets are 32" wide by 96" long and 3/16" thick. They are pre-decorated and will never require preservative treatment. They cannot rot or rust and, of course, they are fireproof!

The color and striated graining is imparted to the sheet by embedding ceramic granules in the asbestos cement. The graining is so striking, it is difficult for the eye to distinguish the vertical joints. No batten strips are needed.

For a free booklet showing the seven beautiful colors of this new material and giving full information, write Johns-Manville, Dept. AB, Box 60, New York 16, N. Y.





One man can handle and place with ease a full-size sheet of Colorbestos. Nail holes are pre-punched.



Colorbestos sheets are shipped on a pallet usually containing sufficient material to cover a complete house. Field cutting is kept to a minimum.



Johns-Manville

BUILDERS! here's the

COST LESS-INSTALL FASTER

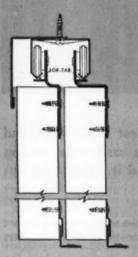
By-passing doors are the ideal doors for closets, cupboards, wardrobes. They increase room space, cost less to install and give an added touch of modern beauty to any room.

Leigh Sliding Door Hardware is the ideal unit for hanging sliding doors. Leigh saves you time and money on every installation. It's completely packaged for your convenience and on-the-job protection, eliminating the need for time-wasting delay while additional parts are obtained.

With Leigh, all adjustments and alignments can be made by unhooking doors from the track. Doors lift easily from the *front*. Guide Strip at door bottom eliminates troublesome grooving.

A facia strip is available for trim at top of opening to eliminate the top trim board and reduce installation time.

Compare, and you'll standardize on Leigh Sliding Door Hardware for low cost, trouble-free operation.



Cutaway view of Leigh Sliding Door Hardware installed on 1%" deers.

Complete parts for one installation in this heavy tube



Everything you need for a single installation comes complete in this heavy shipping tube. Parts are sinc-plated heavy gauge steel, track is zinc coated and bonderized. Door pulls are solid brass. Sizes for 2, 3 and 4 by-passing door installations for %" or 1%" doors.



Look at LOK-TAB*

LOK-TAB*, an exclusive feature found only on Leigh hardware, is the final installation operation, absolutely insures doors connot jump the track. Only a screw-driver is needed to set LOK-TAB* in place. LOK-TAB* means greater customer satisfaction, an end to troublesome call-backs.

"You get a whale of a lot for your money when you buy Leigh Building Products"



New Kigh Line of

SLIDING DOOR HARDWARE

LOK-TAB*

Leigh's exclusive LOK-TAB* is only one of the outstanding time and money-saving features of this new by-passing door hardware. Leigh Sliding Door Hardware is engineered and built for the finest homes, yet priced so low you'll want it for your low-cost housing projects.

LEIGH OFFERS YOU:

Easier installations, long, trouble-free operation.

"STURDICO" WHEELS

Quiet, easy-rolling wheels designed for years of satisfactory service.

COMPLETE PACKAGE

Everything you need for a complete installation in a heavy tube.

GUIDE STRIP

Eliminates grooving doors, saves valuable time, insures smoother operation.

WRITE TODAY for Bulletin 87-L giving full, illustrated information on this outstanding new line of sliding door hardware. For full details on the complete line of Leigh Building Products, ask for Catalog 52-L.

*Patent Pending





The finest WHEEL!

The "STURDICO" Wheel used by Leigh is unaffected by oils, grease or moisture, never develops flat spots as do other plastic wheels.

Wheel rides on edges of track, free of dust or dirt. Built-in lubrication insures years of quiet, smooth operation of even heaviest doors.



LEIGH BUILDING PRODUCTS DIVISION

AIR CONTROL PRODUCTS, INC.

Leigh Ave., Coopersville, Michigan

THE PROVED WAY TO PRODUCE THE BEST CONCRETE...



Catalogs

374-BASEBOARD RADI. ATION-Applications and advantages of this product, with ASTM specifications, instructions on how to order, friction tables of standard fittings, heat carrying capacity tables, are included in this 12 page catalog. Directions for layout of a typical hot water haseboard radiation system are given. Roughing-in dimensions for flush or recess mounting using 1- or 11/4-inch pipe included. Fedders-Quigan Corp., Dept. AB, 70 Tonawanda St., Buffalo 7, N.Y.



RILLO
AND PARAMETERS
ARCHES BEAMS
AND TRUSSES

375-LAMINATEDWOOD MEMBERS-New 20 page catalog discusses glued laminated wood arches, beams and trusses; basic shapes are illustrated with appropriate construction application in institutions, commercial and industrial buildings. Fundamental design data, dimension tables and connection details are included; specification data on lumber, adhesives, hardware and finishes also given, Rilco Laminated Products, Inc., Dept. AB, First National Bank Bldg., St. Paul 1. Minn.

376-WEST COAST LUM-BER-This attractive brochure presents the application of Douglas Fir, West Coast Hemlock, Western Red Cedar and Sitka Spruce for modern commercial structures. Using photograph-text treatment, it mentions the advantages of the use of these woods in various types of buildings, also including farm construction and homes. The adaptability, speed of construction and efficiency of this lumber are shown. West Coast Lumbermen's Association, Dept. AB, 1410 S.W. Morrison St., Portland 8. Ore.





377—RADIANT CEILING HEATING-Installation and advantages of "Ceil Heat" electric radiant cables plastered into the ceiling of new houses for lifetime service is the subject of this folder. How it operates, its ease of control. economies of construction and heat costs are shown. Pictures and diagrams further indicate its uses. Other applications, as for driveways, sidewalks, gutter and drains, etc., are described. Ceil Heat Division of Homes, Inc., Dept. AB, 5212 Homberg Drive, Knoxville, Tenn.

FOR MORE INFORMATION USE COUPON, PAGE 174

PROTECTIVE PAPERS

New York 17, N.Y.

Chicago 6, Illinois

San Francisco S. Cal.

Right—Commercial doors of wood or steel are built in any size to fit any opening—a complete door engineering service.

Below—Special Design 2M, one of many new raised-panel residential models of The "Overhead Door." Send for complete information



Adds to the BEAUTY, VALUE and CONVENIENCE of the home

Look for the famous trade mark in the yellow pages of your telephone directory!



...insures buyer satisfaction!

National consumer advertising is pre-selling your prospective buyers on the easy operation, strong construction and long life of The "Overhead Door." Install this quality garage door in every home you build. It's one of your best selling points!



OVERHEAD DOOR CORPORATION · Hartford City, Ind.

Manufacturing Divisions

Hillside, N. J. Cortland, N. Y. Oklahoma City, Okla. Nashua, N. H. Lewistown, Pa. Dallas, Tex. Portland, Ore. Glendale, Cal.

Utility

UTILITY has a new and interesting meaning in EXTENDO-BAR...Hall-Mack's latest creation for modern living.

At first glance it's an attractive, conventionallooking towel bar, but there's more! Almost like magic...by pulling the knobs at each end... EXTENDO-BAR becomes nearly twice its original width, providing extra space for drying hose, lingerie, children's clothing, guest towels and other things usually fast-dried in the bathroom.



If ever a truck was designed with the driver in mind...

this new Ford Truck is it! New "DRIVERIZED" Cab cuts driver fatigue.

New easy handling saves work and time getting around in tight spots. These and many other TIME-SAVING features in the all-new Ford Trucks help get jobs done fast.

Time is money! Today's truck owners know it. Ford Truck engineers know it. That's why TIME-SAVING was a major goal in designing the completely new Ford Trucks for 1953. With scores of new TIME-SAVING features, the new Ford Trucks are made-to-order for your work.

New "DRIVERIZED" Cobs provide living room comfort, cut driver fatigue. They help save time by making driving easier and more efficient in many ways:

Better visibility for instance. Although the new curved one-piece windshield is the most obvious improvement, bigger windows at the sides plus a 4-ft.-wide window at the rear, offer an amazing increase in all-around visibility.

The new Ford Truck seat is something special. Wider, of course. Non-sag seat springs. Adjustable seat cushion and separate adjustable back-rest. Most interesting new Ford exclusive feature is that every seat now has a built-in shock snubber to help level out the ride.

For easier maneuvering in tight



New Ford "Driverized" Cabs cut driver fatigue. Both Standard and Deluxe Cab (shown) have new curved one-piece windshield, 55% bigger; new wider adjustable seat; new seat shock snubber; new pushbutton door handles.



COMPLETELY NEW Ford Pickup with 6½-ft. box features new bolted construction, new clamp-tight tailgate. Choice of V-8 or Six. Five transmissions including FORDOMATIC DRIVE and OVERDRIVE (extra cost).

quarters, between buildings, or in loading and unloading, turning diameter has been considerably reduced. This was done by "setting back" the front axle, widening the front tread, and by improving the steering geometry.

Synchro-Silent type transmissions are now standard on all of the new truck models and at no extra cost. This means faster shifting and less truck momentum lost. The shift lever on all 3-speed transmissions is mounted on the steering column, where it is easy to reach.

Fully automatic drive is now available in Ford Series F-100 half-ton trucks at extra cost. FORDOMATIC is a great time-saving convenience. A gas-saving, engine-saving OVER-DRIVE transmission is also available at extra cost in these models.

Only Ford gives you a choice of V-8 or Six in five different engines. For light-duty trucking, choose the new 101-h.p. overhead-valve "Cost Clipper Six" featuring high-compression performance and Low-FRICTION design, or, the famous 106-h.p. Ford V-8, proved by billions of service miles. New Ford service accessibility makes engines much easier to get at.

And for '53, you have many more Ford Truck models to choose from in order to get the one *right* truck for your job.

FOR COMPLETE INFORMATION on all or any of the new Ford Trucks, write: FORD Division of FORD MOTOR COM-PANY, P.O. Box 658, Dearborn, Michigan. State your work and what type and size of truck interests you.



FORD ECONOMY TRUCKS SAVE TIME! SAVE MONEY! LAST LONGER!

new products

offered by manufacturers



LOUVER TYPE WINDOWS

5321

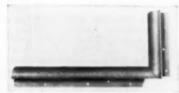
To prevent passage of moisture, plastic tubing is fitted into the extruded aluminum sill and header throughout the entire length of these units. A nine-position control handle insures window rigidity in any position and also locks the window. The louvers offer the added convenience of cleaning both sides of each piece of glass from the inside of the room.



In doors, also, the usefulness of louvers is recognized. Where privacy is desired, opaque glass can be used. If individual panels should be broken they can be easily replaced at low cost. Hollywood Louver Windows, Inc., Dept. AB, 357 N. La Brea Ave., Los Angeles 36, Calif.

STEEL PLASTER GROUNDS AR65308

A new builder's convenience in installation of steel plaster grounds for doors and windows is the added feature of readymade mitres (right hand at one end, left hand at the other) in ½-, ¾- and ½-inch grounds. This precision die cutting is available in seven and 10 foot stock lengths.



Besides providing an accurate selfmitre, coped joints become a simple operation. All that is required is to snip off a portion of the back nailing flange, then overlap to form a perfect cope. Casings, Inc., Dept. AB, 2408 N. Farwell Ave., Milwaukee 11, Wis.

REINFORCING CORNER BEAD AB65301

A new corner bead, Keybead, is recommended for economical "true" plaster corners. On-the-job tests have proved its fast and simple application. The product combines the open mesh advantages of Keymesh plaster reinforcing with a precision formed bead. Plaster flows around the steel wires, giving a generous bond of plaster to the lath, guaranteeing solid plaster corners. Crack resistance is insured by the imbedment of the wire, to which is added the correctly formed metal bead. The material is galvanized to prevent bleeding or rust streaks.

Keybead is made in 7-, 8-, 9-, 10-, and 12-foot lengths. It has 2½-inch wing woven of 18 gauge galvanized wire, with 1-inch mesh. It is packed in convenient sized cartons. Keystone Steel & Wire Co., Dept. AB. Peoria 7. III.

PLASTIC FLOOR TILE AB65304

Vinylast is a resilient vinyl plastic floor tile molded from solid plastic (not laminated), laboratory tested for uniformity. It is stated to combine beauty with economy. It can be installed on concrete above or below grade and on steel decking. It has been used successfully over radiant heated floors.



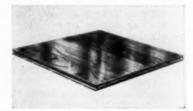
The floor tile may be used outdoors as well as for all types of interior floors. It is so durable that abuse from spiked shoes has not marred the finish of a Vinylast floor in a golf club (see illustration). Because of its durability, the product is recommended for bathrooms, bedrooms and kitchens. Surface is smooth and non-porous, easily cleaned with soap and water. Vinyl Plastics, Inc., Dept. AB, Sheboygan, Wis.

BLOCK FLOORING

AB6531

Multi-Wood Blok Floor is made from selected mixed hardwood, designed to give architects and builders an attractive block floor at low cost. Prefinished at the factory for extra durability, the blocks are made in one grade only, No. 1 Common and Better.

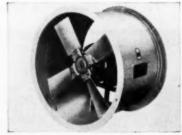
Available sizes include 9, 7½ and 6¾ inches square, all with a thickness of $\frac{27}{52}$ inches, and in 10, 9, and 8 inches square, one-half inch thickness. The floor-



ing is recommended for installation in housing projects and institutions as well as in large and small homes, D. L. Fair Lumber Co., Dept. AB, Louisville, Miss.

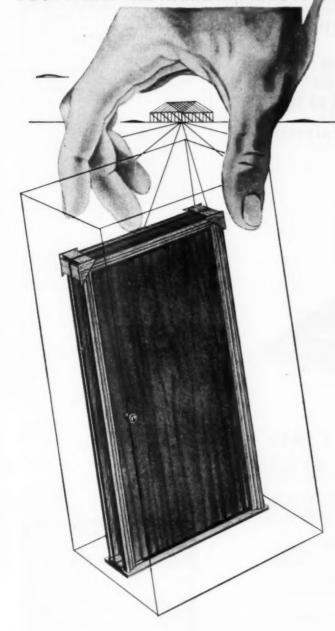
DIRECT DRIVE DUCT FAN AB65317

Built into a steel drum with rear and front mounted flanges, this fan is designed for factories, mines and duct installations. Motors are ball bearing type, totally enclosed. Blades are non-overloading, made of cast aluminum.



The unit is recommended for temperatures up to 110 degrees F, and is available for higher temperatures on special order. Fan sizes range from 16 to 48 inches in diameter, 2,900 to 37,500 c.f.m. The unit is also available belt driven with motor and belt out of air stream. Chelsea Fan & Blower Co., Inc., Dept. AB, 639 South Ave., Plainfield, N. J.

JUST WHAT THE NAME IMPLIES...

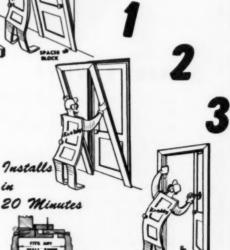


Ready Hung Doors THE DOOR AND FRAME PACKAGED UNIT

Just what the name implies, the Ready Hung Door is a door and frame packaged unit having the door hinged, the lock installed, and the frame trimmed both sides, ready to install in any rough opening. The unit is job engineered for easy installation in 3 simple steps.



Slip the halves together in the opening and nail it to the house. As simple



SOLD THROUGH LUMBER DEALERS

For further information write the mill nearest you.

BIRMINGHAM, ALA.

BURBANK, CALIF.
Ready Hung Door Mfg. Co.
200 South Victory Blvd.
CHARLOTTE, N. CARO.
National Door Unit Corp.
123 E. Griffith Street

PALLAS, TEXAS
Ready Hung Door Mfg. Corp.
1113 Oragon

Prefabricators, Incorporated P. O. Box 5222

GRAND RAPIDS, MICH. Haskelite Manufacturing Corp. 701 Ann St., NW

HOUSTON, TEXAS Ready Hung Door Mfg. Co. P. O. Box 124 MEMPHIS, TENN. Ready Hung Door Mfg. Corp. 911 Rayner

NEW YORK, N. Y. Bailey-Whalen Company 17 Park Ave., W. Orange, N. J.

READY HUNG DOOR CORP., Fort Worth 2, Texas

SAN ANTONIO, TEXAS Ready Hung Door Mfg. Corp. 200 Seguin Street

SIOUX FALLS, S. DAK.

TORONTO, CANADA C. Lloyd & Son Limited 1214 Lawrence St., N. Park P. O., Ont.



FORM NO. 2653-1

AIR CONDITIONING?

You'll save money with ...

ALFOL BUILDING BLANKET

"First in Reflective Insulation"



HERE'S WHY!

ALFOL is the type of insulation that outperformed full-thick bulk material in the famous U. S. Bureau of Standards summer efficiency tests. And no wonder!

Its pure aluminum foil sheets reflect 95% of all radiant heat . . . instantly, continuously. And Alfol can't absorb or store up heat.

This proven efficiency saves—and sells! It often promotes the use of a smaller air conditioning unit. And it always promises lower cooling costs... longer equipment life; reduced winter fuel costs... real condensation "insurance."

Yet Alfol will probably cost less than the material you're now using! And, packaged in handy 500 or 250 sq. ft. rolls, it can halve handling costs. Made in 5 types, 4 widths. For full details write Dept. AC... today.

ALFOL

BUILDING BLANKET INSULATION

"PIRST IN REFLECTIVE INSULATION"

A Subsidiary of

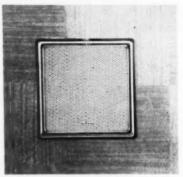


new products

RECESSED DOOR CHIME

AR65306

A new door chime designed for recessed installation offers full protection against dirt and grease, and a new resonating principle. With the sounding mechanism located behind the wall line, only the 7-inch square grille is visible. The simplicity of the device permits its installation in any room; typical locations are at clock height in the kitchen, baseboard height in the living room or in hallway ceiling.

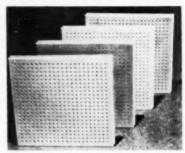


The new chime is equipped with a double resonating system, with two openings in the resonator tubes. Both ends of the tone bar are resonated, and an improved tone is said to result. The chime is furnished with a reversible red or white grille, which can be painted. The unit sounds two notes for the front, one note for the rear door. NuTone, Inc., Dept. AB, Red Bank & Madison Roads, Cincinnati 27. Ohio.

ACQUISTICAL TILE

AR6530

Kolor-Fast Variegated Acoustical Tile is being introduced to lumber dealers in four new blending shades of tan plus the standard white Sta-Lite shade. The new colored tiles offer high sound absorption, non-fade colors and easy application with patented clips, Adhestik, nails or screws.



Tile has tongue and groove edges, the Nu-Wood pencil-thin shadow line bevel, and is available in 12x12 inch size, onehalf inch thick. Wood Conversion Co., Dept. AB, First National Bank Bldg., St. Paul 1, Minn.

FOR MORE INFORMATION
USE COUPON, PAGE 174

AR65309

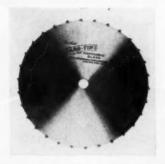
This radial arm cutting tool is provided with power cross feed. Besides the normal straight cut-off, the machine is also capable of making miter cuts, bevel cuts, and compound miter (bevel miter) cuts with the power cross feed. Materials up to 2x18 inches can be cut with the power cross feed with no adjustments in the air feed mechanism. The operator simply



presses the foot control valve, holds it down until the desired cut has been made, then releases it; the two-way action of the air cylinder immediately returns the saw to the idle position. The air feed cylinder can be detached by removing only one stud, for placing the machine in manual operation to utilize the machine's flexibility. DeWalt Inc., Dept. AB, Box 540, Lancaster, Pa.

DISPOSABLE SAW BLADE AB65307

A disposable, Hard-Tip blade, wood-working saw manufactured by a new hardening process enables the blades to remain sharp from four to six times longer than conventional saws. When they become dull, they are simply discarded, like used razor blades. Their disposable feature eliminates saw sharpening problems, since they



save time required for taking saws to the service shop, waiting for repairs, plus the expense of repeated sharpening.

This saw is provided with super-hard, short teeth which are stated to cut faster, smoother, and more quietly. Being short, they cannot grab, are safer to operate, do not vibrate, and require less operating power. Exhaustive tests have proved the saws' ability to save time and labor. Sizes range from 6 to 16 inches in diameter. Heinemann Saw & Manufacturing Co., Dept. AB, Canton 6, Ohio.

FOR MORE INFORMATION
USE COUPON, PAGE 174

For lowest cost include

KOOLSHADE SUNSCREEN

for sun-exposed windows





A PRODUCT OF

lects sun heat :(

HERE'S WHY!

KoolShade Sunscreen stops heat outside . . . slashes the sun load on your houses.

KoolShade Sunscreen enables you to standardize on one size of air conditioning unit, regardless of the exposure of the house.

This gives volume purchasing power on air conditioning equipment; lower installation costs for you...lower operation costs for your buyers. The cost of KoolShade sunscreen is nominal and is returned many times through these sayings.

We'd like to show how you can add a powerful selling feature . . . with KoolShade in Qwik-On Tension framing . . . and save money when you do it. It's a story every builder who plans to feature air conditioning in his homes should know. Write us for complete details today. KoolShade Products,

Ingersoll

PRODUCTS



DIVISION

Chicago 4. Illinois

lects sum heat :

Tellects sum heat :

Pittsburgh Glass helps



Every nickel you spend on glass shows. And the results far outweigh the cost.

you say: "sold"... instead of "for sale"



FULL-LENGTH DOOR MIRRORS, in bedrooms and entrance halls, can do a lot to swing home seles—and extra business—your way. They can be put up in just a few minutes... and they're amazingly low in cost. Pittsburgh door mirrors are really full-length—68" high, and 16, 18, 20, 22 or 24 inches wide. These five sizes fit more than 90% of all interior millwark doors.



A POLISHED PLATE GLASS MIRROR, like the one in this bathroom, and rich, sparkling, easy-to-keep-clean Carrara Glass walls (note how these walls are clearly reflected in the flawless Pittsburgh mirror) make any home more attractive... much easier to sell. Whether you are building new homes or remodeling, remember these two Pittsburgh Glass products. Carrara Glass is easily handled. It comes in ten attractive colors to satisfy any decorative need—in bathrooms, powder rooms and kitchens. Pittsburgh mirrors are available in a variety of styles for every room in the home. Architect: John Hironimus, Evansville, Illinois.

Build it better with Pittsburgh Glass



See Sweet's Builders Catalog for detailed information on Pittsburgh Plate Glass Company products.

PAINTS . GLASS . CHEMICALS . BRUSHES . PLASTICS . FIBER GLASS

PITTSBURGH PLATE GLASS COMPANY

IN CANADA: CANADIAN PITTSBURGH INDUSTRIES LIMITED

handsome, durable



STAINLESS STEEL APARTMENT HOUSE MAIL BOXES

Again pioneering in the development of fine guality equipment for homes and apartments, Auth offers Apartment House Mail Boxes with stainless steel fronts. No other mail box face-metal has the same resistance to corrosion and abuse as satin-finished stainless steel. With a minimum of care Stainless-Steel-Front Mail Boxes will have the same fine appearance many years after installation as they had when installed. Recognizing this fact the Metropolitan Life Insurance Company, the New York City Housing Authority, and many other leading developers of large scale housing have specified and installed Auth Stainless-Steel-Front Mail Boxes in all their recent developments.

Auth Mail Boxes are officially approved by the U. S. Post Office. They are made in gangs of 3 to 13 receptacles to a gang; by joining gangs together any

number of receptacles may be installed.

Other outstanding features are a wide one-piece trim, rust-proof lead-coated steel interiors, and extra-heavy reinforced doors. Available with or without push buttons to ring bells or chimes in apartments. In addition to satin-finished stainless steel, brushed brass or sprayed brass finishes are available.

For complete details on Auth Apartment House Mail Boxes, write to the Auth Electric Company, Inc., 34-20 Forty-Fifth Street, Long Island City 1, N. Y., or consult your telephone directory for local office.

NON-ELECTRIC DOOR CHIMES FOR APARTMENTS

NATIONAL MODEL No. 850



A completely non-electric door chime . . . no wiring. Utilizes a mechanical push button mounted on the outside of the door or door frame to so sound two musical notes on the chime mounted on the inside. Handsome push button excutcheon plate is forged solid brass with polished finish. Decorative chime (only 6½ x 3 x 2 x 2 is finished in ivory enamel. Fits all doors er door frames up to 9" thick. A great money-saver for any home or apartment.

METROPOLITAN MODEL No. 890

Similar to the National Model tion by a mechanical push with an additional "peephole

adjustable window in the chime permits the resident to observe a caller through a oneway mirror without, in turn, being observed. Space for name and apartment number on front plate. A beautiful new design, just re-leased, and ideal for

apartments.





FOREMOST IN THE DESIGN AND MANUFACTURE OF ELECTRICAL SIGNALING, COMMUNICATION, TIME, PROTECTIVE EQUIPMENT FOR SCHOOLS, HOSPITALS, HOUSING, OFFICES, SNIPS, AND INDUSTRY.

new products

GARAGE DOOR HARDWARE

Track-type hardware for one-piece fabricated or custom-made upswinging garage doors is provided with a pre-lubricated roller bearing located at the main pivot and ball bearing spring suspension. A special roller composition makes them unaffected by temperature changes and resistant to abrasion as well as oil or grease. The roller encases an oilite bearing for silent operation.



Springs and bearings keep the mechanism in balance at all times, keeping the door under full control at all positions of its arc. Strength without increased weight is added by the use of formed channels and stressed parts. Heavy springs of oil tempered wire, coiled and normalized, are an important factor in the hardware's general efficiency. A sliding pressure clamp permits fine adjustments, Equipment includes a center-locking handle with built-in locking cylinder and complete weatherstripping. The present model is for doors from six feet six inches to seven feet six inches high, and from seven to ten feet wide, weighing 100 to 150 pounds. Tavart Co., Dept. AB, Paramount, Calif.

BASEMENT DRAIN COVER

Replacing the strainer on basement drains, this device, which screws open and shut like a faucet, keeps water from backing up into home basements. It seals out sewer gas, rodents, water bugs and other vermin. When installed, the seal lies flush with the floor. The device,



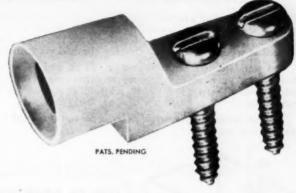
called the Sewerseal, fits any drain without additional digging or alterations; a small quantity of cement holds it in place. The device is kept closed except when emptying laundry tubs or flushing the basement floor. Wm V. Heinz, Dept. AB, 935 Hennepin St., La Salle, Ill.

FOR MORE INFORMATION

USE COUPON, PAGE 174

AMERICAN BUILDER

Silence your cupboard doors with a breakproof catch!



The "WASHINGTON 1125" Friction Catch

Breakproof and silent with adjustable holding power.

Easy to install and low in cost.

Meets any door condition* and holds.

Made of Polyethylene.

*Warping, etc.



WASHINGTON LINE

Ask your dealer or write to: WASHINGTON STEEL PRODUCTS, INC. Dept. AB-6, Tacoma 2, Washington

NEW "PACKAGED" SAFWAY "4 by 4" **ROLLING TOWERS**

- SPEED WORK!
- SAVE MONEY!

3 STANDARD SIZES! ALL STRUCTURAL PARTS INCLUDED

Now you can select a tubular steel rolling work tower, economically priced, as a complete "package" that includes all parts (except planking). Towers roll easily to follow the job, then are rigidly locked at working locations. Quickly climbed via built-in ladder.

3 standard sizes available-8 ft., 12 ft. and 16 ft. platform height. 4x7 ft. base area. If your requirements change, you can add standard Safway "4 by 4" scaffold equipment to increase

Write for more information today or see one of the 137 SAFWAY dealers near you.



LOTS OF ELBOW ROOM ON PLATFORM; APPROVED SAFETY GUARD RAIL.

RIGID, SAFE, ALL-STEEL CON-STRUCTION. COMPLETE TOWER READY TO ASSEMBLE.

SAFE, BUILT-IN LADDER IS CONVENIENT TO USE.

3 HANDY SIZES—8 FT., 12 FT. AND 16 FT. HIGH. PRICED RIGHT!

SWIVELING CASTERS WITH EASY-ROLLING 4-IN. WHEELS. SAFETY BRAKE ON WHEEL AND SWIVEL



6221 West State St.

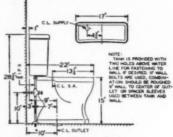
RENTED and SOLD by distributors everywhere

new products

TRAILER MODEL CLOSET

AR45313

A compact vitreous china closet called the "Trailer" model has a tank equipped with an integral china overflow, ground-in valve seat and either a regular or antisyphon balanced ballcock. The unit is designed for use in home trailers but is adaptable to any small toilet area where space is scarce. If roughed in at ten inches, this model can be placed in a space only 17x22 inches. The tank is provided with two holes above the water line for fastening to the wall if desired.



Only three gallons of water, maximum, are required for complete flush, including the refill of a three-inch water seal in the front bowl. Roughing measurements as shown in the line drawing are for the indicated job only and may vary a half inch. Eljer Company, Dept. AB, Railroad St., Ford City, Pa.

MATERIALS CONVEYOR

This light weight conveyor will handle brick, block, tile, mortar, bulk and roof decking, and will even pour concrete. It is said to be useful for low height jobs that are worked from second and third floor scaffolding levels. The unit is constructed from steel channel with ball bearing tubular rollers as a bed. Its heavy-duty vulcanized rubber belt has a waffle-weave pattern for anti-slippage.



The machine is recommended for cellar excavations, truck loading and pouring hard-to-reach concrete jobs. It is available trailer-mounted with a hand winch for raising, and also has bulk attachments. The unit can be worked separately from truck platforms or saw horses, increasing the range. Available in five-foot variables from 15 to 60 feet in length. The Red Cap Co., Dept. AB, 15 Maple Ave., Paoli, Pa.

> FOR MORE INFORMATION USE COUPON, PAGE 174



Ponderosa Pine

These and many other ideas are contained in a new booklet "The New Outlook," fully illustrated with architectural renderings. Mail the coupon for your copy. Ponderosa Pine Woodwork
Dept. WAB-6, 38 South Dearborn Street
Chicago 3, Illinois
Gentlemen: Please send me a free copy of "The
New Outlook."

Name......

Business or Profession.....

Address.....Zone...State.....



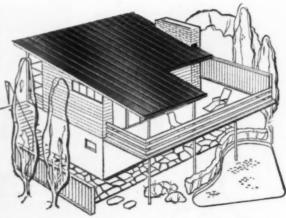
For Almost a Century...

Yes, since 1862, PECORA has played its important part in helping America build its better buildings from coast to coast—building with quality materials—material by Pecora. Across the years, across the country, Time has proved the wisdom of depending on Pecora if you're depending on the best!

Manufacturers of Caulking Compounds, Mastics,
Putties, Glazing Compounds, Roof Coatings,
Maintenance Finishes, Industrial Enamels.



PECORA PAINT COMPANY, INC. -SINCE 1862-



"VALLEY TIN" MAKES GOOD ROOFS, TOO!

When you order "Valley Tin" or "Roofing Tin," you mean Follansbee Terne Metal, and that's what you should insist on getting. There is no substitute for the Terne Metal you've been using as weather-sealing for years—and for good reasons. It's the best material for these highly critical areas by far. But, for the same reasons, Terne is also best for the entire roof.

Terne Metal consists of a steel base hot-dip coated with lead-tin alloy available in 40 lb., 20 lb. and 8 lb. coating weights in widths ranging from 4" to 28"—in IC (Standard) and IX (Heavyweight) gauges.

- IT'S DURABLE . . . lasts as long as the building stands. Tin firmly bonds lead to steel base . . . lead gives lasting weather protection.
- IT'S EASY TO APPLY ... 50-foot seamless rolls are readily cut to any desired length. Terne Metal is extremely ductile.
- IT'S LIGHT-WEIGHT . . . Terne Metal weighs only 0.7 pounds per square foot (70 pounds per square).
- IT'S WEATHERPROOF . . . provides a tightly sealed metal sheath on roofs of any pitch. Fireproof . . . easily grounded.
- IT'S BEAUTIFUL ... variety of seam designs break up roof expanse into panels that constantly change their contours as the sun passes over—each hour a new roof design.
- IT'S COLORFUL... Terne Metal roofs can be painted any color immediately after installation. Roof colors can be changed at any time . . . never a "sun-faded" appearance. Write for complete details on Follansbee Terne Metal, the original "Valley Tin."

FOLLANSBEE STEEL CORPORATION

GENERAL OFFICES, PITTSBURGH 30, PA.
Cold Rolled Strip Seamless Terne Roll Ro

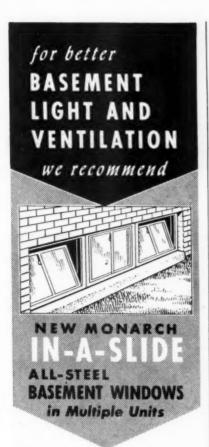
Cold Rolled Strip Seamless Terne Roll Roofing Polished Blue Sheets and Coils



Sales Offices—Chicago, Cleveland, Detroit, Indianapolis, Kansas City, Los Angeles, Milwaukee, Nashville, New York, Philadelphia, Rochester, San Francisco, Seattle; Toronto & Montreal, Canada. Mills—Follansbee, W.Va.

FOLLANSBEE METAL WAREHOUSES Pittsburgh, Pa. Rochester, N.Y. Fairfield, Conn.

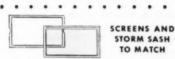
AMERICAN BUILDER



Dealers everywhere see the extra profits in multiple window unit sales. By pushing Monarch Weather-Tight Mullions and Genuine In-A-Slides to be built up into units of 2 to 6 windows each, the alert dealer can increase his sales tremendously.

This unit type window is ideal for giving more light and better ventilation in the home basement and in small factories, warehouses, garages, etc.

By selling the combination, you have a quality line - a versatile window that will meet every sales possibility and build bigger and better profits for you.



SCREENS AND STORM SASH TO MATCH

All windows, screens and sash frames are bonderized and dip painted in baked enamel. Screen mesh of standard rust proof material.



Sell the Best-Sell Monarch In-A-Slides SOLD BY ALL PROGRESSIVE DEALERS

When you think of Basement Windows ... think of NEW MONARCH MACHINE & STAMPING COMPANY

new products

CENTRIFUGAL PUMP

High capacity centrifugal one- and twostage pumps ranging from 11/2 to 71/2 h.p. in one and three phase motors have capacities to 120 g.p.m. at 15 feet suction head and 20 pounds pressure. Designed for irrigation, air conditioning and industrial purposes, they can handle most types of liquids in diverse uses.



Parts are designed for easy accessibility and maintenance; disassembly is convenient and simple. Every pump is factory tested for pressures and capacities. Pump and motor are integrally coupled and anchored on the motor footing. Flint & Walling Mfg. Co., Inc., Dept. AB, Kendallville, Ind.

WATER ACTION DISHWASHER AB65314

Dishes for an average family of five can be washed, rinsed and dried in a cycle of about seven minutes by the new Dishmaid, a packaged unit operating on water pressure. The unit fits flush in the drain board of the sink, and when not in use. is out of sight, yet permits storage space in the cupboard beneath.



Made of aluminum, with inside measurements of 15 inches diameter and 111/2 inches depth, the unit functions by operation of water spurting from four jets, causing the dish-filled basket to rotate, immersing the dishes in hot water and soap or detergent. While the water drains, the iets continue to operate, creating a rinsing cycle. Dishes and silverware then dry in the hot air created by reflection from the hot aluminum sides of the basin. Dishmaid, Inc., Dept. AB, 2401 Carnegie Ave., Cleveland 15, Ohio.

> FOR MORE INFORMATION USE COUPON, PAGE 174

for suburban homes beyond the water mains



Only FaW Offers These 4 Big Advantages!

• You'll do your customers a real favor if you select F & W Water Systems for their new homes. First, they're proven by 87 years of successful, dependable service on farms and homes throughout the nation. Second. capacity for capacity and depth for depth ey're most efficient and cost less to operate! Third, F & W precision manufacture, advanced design, and non-corrodable materials assure longer service and lowest cost per year. Fourth, there's practically no upkeep, and & W's exclusive "Speedichange Rotary Seal" permits pump servicing without disconnecting pipelines or disassembling pump. In addition, each pump is individually tested before leaving the factory. So . . . when you need "Flowing Water," remember F &

There's an F & W Pump for every need what-



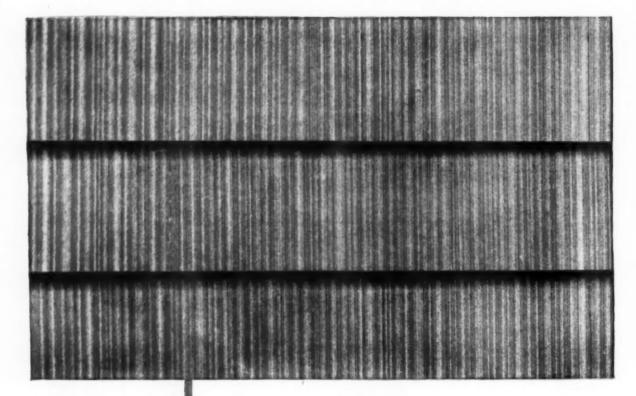
Delivers extra capacity. New automatic control valve assures top per-Send for F & W Data Book No. 210 for your files. It has helpful information.



F & W Multi-P & W Multi-Purpose Pump Change from shallow to deep well simply by mov-ing jet off pump down into well at no extra cost! The VARIJET (below) de-livers 40-70% more water at less cost



COCOR·SEACED



COLOR-SEALED CAREYSTONE

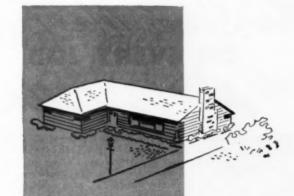
IS MADE IN WHITE AND SEVERAL ATTRACTIVE COLORS.

"TORTURE TEST" IN CAREY WEATHER-O-METER



proves top quality and performance of Color-Sealed Careystone Siding, under conditions of blistering heat, freezing cold, soaking rains.

Carey stone



asbestos siding in colors that resist time and weather

The color is permanently sealed in by an exclusive Carey process that seals out rain, dirt, grime, stains!

Perfected by Carey engineers after years of development, Carey's exclusive sealing process gives Careystone a lasting, armor-tough surface that protects the color from fading . . . repels water . . . resists dirt, grime and discoloration. Careystone is rot and vermin proof, too. Never needs paint, is incombustible. And, for that real luxury touch, it is deeply textured with a vertical striated design of exceptional beauty.

You'll like the ease and economy of installing Careystone, too. Put it on right over wood, using face nails; over gypsum or fiber board sheathing with the Carey Shadow-line channel system. Or, right over the old siding when remodeling. Give your homes dramatic new beauty and fresh sales appeal, with Careystone. See Color-Sealed Careystone asbestos siding at your Carey dealer. Or, mail the coupon for detailed literature and samples.

The Philip Carey Manufacturing Company, Lockland, Cincinnati 15, Ohlo in Canada: The Philip Carey Co., Ltd., Montreal 3, P. Q. Serving Home, Farm and Industry Since 1873



More Speed... More Profits ON EVERY JOB with



NATION-WIDE SERVICE

American Distributors in principal cities furnish quick service by factory-trained men when repairs are needed. Main office of R. N. Forrester, Chicago area distributor, shown here.

Big job or small job-vou'll do it faster and better and MAKE THE MOST PROFIT with an All-American line-up of machines and materials! They're performance-proved on finest floors . . . save labor and insure best results from start to finish!

Depend on American Machines and Abrasives to put a beautiful, super-smooth surface on floors with rapid and efficient sanding, steel wooling and polishing. Use American quality finishes and cleaning materials for wood, cork, concrete, terrazzo, asphalt, rubber, linoleum or plastic. Speed up small tool jobs with American belt sanders, and portable electric saws.

Check your needs now!



FLOOR SANDERS

Five models, a machine for every pur-pose. Super 8-8" drum; Standard-8" and 12" drums; AMR -8" drum; Little American-8" drum.



FLOOR EDGERS

Two models, 7" and 512" discs—for sanding edges, closets, stairs, small halls.



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New improved American Black Demon and American Combination high quality papers are scientifically improved to give longer life, faster cutting.



FINISHES

American Finishes are finest quality—com-plete line for all floors . . . seals, finishes, waxes, cleaners.



FLOOR MAINTENANCE

American Deluxe, for all floors—polishing, waxing, steel wooling, disc sanding, grinding, 19", 16" and 14"



PORTABLE

BLECTRIC SAW

8½" blade cuts 2½"
plank at 45°, or 3"
straight cut. Motor develops 2½ H.P. Cuts
fast, any position, onehand operation.



BELT SANDERS

Portable ... many uses, roughing to final finish ... Sanderplane is ten times faster than hand plane.



LESTO SAW Portable electric iig or saber saw for scroll work, dovetailing, cut-



50 YEARS

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The American Floor Surfacing Machine Co. 511 So. St. Clair St., Toledo 3, Ohio

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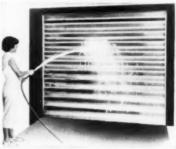
City......State.....

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new products

ALUMINUM GARAGE DOOR AB65322

All-aluminum upswinging garage door with "Monocoque" facing, an aluminum strengthening method used by the aircraft industry, is available with either track or jamb type hardware. The facing method presses out horizontal strips of sheet aluminum at a slight upward angle resulting in material's ability to withstand concussion without denting as well as resisting vertical or horizontal distortion.



The unit, called "Alumi-Door," may be washed down with a hose without danger of rust or warpage. The door is light in weight and carefully counterbalanced to avoid accidental falling. Doors are made in 8x7, 9x7 and 16x7 foot models. Stevens-Thuet Co., Dept. AB, 2165 Cowles St., Long Beach 13, Calif.

INDUSTRIAL FAN

AR65320

A direct-drive industrial fan, engineered to operate against minimum resistance pressures, provides air deliveries from 5,500 to 38,000 cubic feet per minute. Sizes range from 24 to 48-inch blade diameters. A square mounting panel with flange holes simplifies installation. A streamlined orifice for more efficient air entrance and airfoil blades with "gull wing" design are said to give added strength and uniform pressure-velocity.



The totally enclosed motor is of the capacitor type, with permanently lubricated and sealed bearings. Aluminum alloy blades are non-overloading and may be replaced individually if broken by accident. Hunter Fan and Ventilating Co., Dept. AB, 400 S. Front St., Memphis 2. Tenn.

> FOR MORE INFORMATION USE COUPON, PAGE 174

Typs on Selling Homes... remember - Baby is the Boss

Baby's hard to please when it comes to comfort. She must be warm, she must have hot water at her beck and call. But show the parents a Rheem Gas Furnace and Rheem Water Heater and they'll know baby will be pleased.

More than anything else, they want reliable heating equipment. If you tell them how all Rheem Furnaces are Fire-Tested at the factory—how all Rheem Water Heaters are Pressure-Proved—they'll be sure they are getting the most reliable, the most trouble-free enuipment possible.

Let your Rheem contractors tell you more about the house-selling help you get from Rheem equipment. Check with them today. They're listed in the Yellow Section of the Telephone Book under "Furnaces" and "Water Heaters". They can prove to you that Rheem is the best buy for builders.



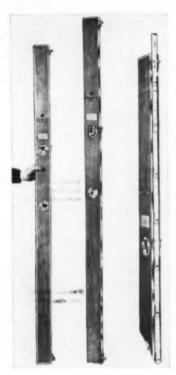
@ 1953. RHEEM MFG. CO.

new products

4 IN 1 BUILDING TOOL

AB65323

An ingenious device combining the functions of a plumb rule and straight edge (left), a level (center) and an on-the-job engineering rod (right) is the new 4 in 1 Tool. Made with a center member of % inch Redwood or Ponderosa with a ¼ inch exterior plywood strip applied with Weldwood glue to each side of the center member, the tool has a total thickness of seven plies.



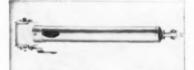
Vials are metallic sealed. A plastic beds the vials into the carrier tubes which in turn are attached to the window plates with metal screws. After tubes are attached, the plastic is removed from the ends of the tubes and plaster of Paris is applied over the screw heads to prevent the vials shifting. Manufactured to extreme tolerances, the 4 in 1 Tool is 6½ feet long, 3% inches wide and 1½ inches thick, weighing approximately ten pounds, Bert Frazier, Dept. AB, 2620 Mackinaw Ave., Pittsburgh 16, Pa.

DOOR CLOSER

AB65316

Builders can attract buyers by equipping homes with the Model "2000" screen and storm door closer. Without changing any parts, a carpenter can attach the device on the right or left hand side of the door, on the hinge side or opposite hinge side, or on the sofit for a more secure mounting and neater appearance.

For quiet closing, the unit has a 1%inch cylinder that is stated to produce over 20 per cent more checking power



than the usual tube. Its adjustable spring develops greater power for positive closing and a speed control valve stays at its set position without adjusting. A "holdopen" device keeps the door open to 120 degrees so that objects can be carried in or out without interference. Sargent & Co., Dept. AB, Water St., New Haven 9, Conn.

NEW WALL COVERING

AB65319

A new wall covering. Enamo-Wall, is hand-printed on paper in enamel finish and is supplied in 10 different effects. It has a durable, stainproof finish, and can stand unlimited washing: most types of stains can be removed from the surface by soap and water. The 18x24 inch sheets are pretrimmed, making them easy to apply in kitchens and bathrooms where wall space is broken up into small areas. For larger spaces, sheets are butted up to each other and taped together with ordinary paper tape which can be removed without impairing the finish, Process Designers, Dept. AB, 226 W. 42nd St., New York 36, N. Y.

SAFETY GOGGLE

AB65324

This product features an extra-wide lens, improved nosebridge design and a soft plastic frame, making the goggle feel light and comfortable even after long hours of wear. The weight is distributed evenly, giving no feeling of weight at any one point.



Large enough to fit over metal or hornrimmed prescription glasses, the goggle gives protection from eye hazards. The lens exceeds federal specifications for impact resistance and optical clarity. It completely protects the eyes from grinding chips, chemical splash, weld spatter, etc. The extra-wide six inch lens gives workers a sufficient range of vision to allow them top efficiency. Lens cannot come loose accidentally because a metal lock bar holds it tight. Clear or colored (light, medium or dark green) lens is available. Watchemoket Optical Co., Inc., Dept. AB, 232 W. Exchange St., Providence 3, R.I.

CONVERTIBLE MASONRY SAW AB65312

Several exclusive features are built into this new model: a pressure equalizer spring automatically cushions the blade, extending blade life; the "Select-A-Notch" allows operator to adjust the cutting head to any desired height. A factory sealed water pump operates wet or dry; a "Hinge-Lok" blade guard serves as a protective shield and eliminates water spray when cutting.



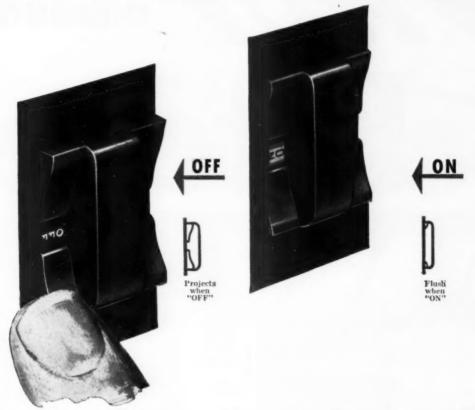
A Rockford, Illinois, contractor has reported "excellent results" when converting one of these masonry saws to track sawing of Indiana Limestone lintels. The converted unit without the tracks can be used for cutting patches, trenches or contraction joints in concrete or asphalt. Clipper Mfg. Co., Dept. AB, Suite 601. 2800 Warwick St., Kansas City 8, Mo.

USE	THIS	COUP	ON I	FOR M	ORE IN	FOR	MATI	ON C	NC
NEW	PRO	DUCTS	AN	D CAT	ALOGS	IN	THI	5 155	UE
Save	Time-	-Just	Inse	rt Key	Numb	ers	and	Mail	To:
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When you address inquiries direct to manufacturers concerning a new product described here, please mention that you saw it described in American Builder

BULLDOG Pushmatic ELECTRI-CENTER



Lets your finger "see" the trouble



THOROUGHDRED IN ELECTRICAL EQUIPMENT

When you equip your building with BullDog Pushmatic Electri-Centers — instead of the old-fashioned fuse box — you can say to your prospects: —

"Here is the world's most modern electrical protection equipment. It gives push-button control. When too many lights or appliances are put on a circuit or a short occurs, the Pushmatic not only clicks "OFF"—but also projects. Thus, even in the dark, the feel of a finger identifies the "OFF" circuit. Then, you simply push a button—after correcting the trouble—and current is "ON" again! No fuses to search for—but instead, modern, simple, and absolutely safe circuit protection and control."

Available in sizes up to 42 circuits, BullDog Pushmatic Electri-Centers fill every industrial, commercial or home requirement. Write today for free Bulletin PM-355, giving complete information. BullDog Electric Products Company, Dept. AB63, Detroit 32, Michigan.

© BEPCO

BULLDOG

Morannounces a Kitchen



Modern Kitchens sell Modern Homes...

and there's no kitchen more modern than a New *Thor*-Equipped kitchen!

From Thor, leader in home appliances for almost half a century, comes a brand-new answer to the home builder's question "What's the best deal in kitchen and laundry equipment for the homes I build?"

Today Thor offers an unsurpassed line of kitchen and home laundry appliances for modern homes—unsurpassed in beauty of design, in flexibility of installation, and in the variety of practical features that appeal strongest to the women who influence your sales.

In addition, Thor offers you and your clients a new, but tested and approved Kitchen Planning Service. This new service includes all phases of kitchen planning — from floor plans to color schemes. There's a Thor-planned kitchen to suit every taste, every budget!

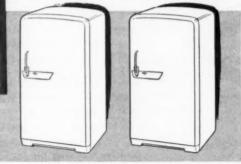
great new

MATCHING BEAUTIES!

New Thor Automatic Washer and New Thor Automatic Clothes Dryer offer the utmost in clothes washing and drying efficiency. Quality assured by famous Thor 5-Year Guarantee available to cover both parts and labor on sealed mechanism and labor on sealed mechanism — and backed up by dependable Thor Factory Service. Matching New Thor Spinner Washer also available, if desired.



plance





THOR BUILT-IN ELECTRIC RANGE

No longer is there any need to compromise size or layout when locating the range in your modern kitchen designs. Here is unlimited flexibility. You can install the huge oven - or ovens - just where wanted, with top-range cooking units adjacent or in any other location desired. New Thor Built-In Electric Ranges are the mark of a truly modern kitchen. They are sure to make your homes the most talked-about new homes in town. And the most-wanted new homes in town!

MATCHLESS VALUE IN MATCHING APPLIANCES

When it comes to modern beauty plus features that more women want - all America goes for the brilliant new Thor Refrigerator, the Thor Thrifty Freezer and the new Thor Gladiron! And never a servicing headache with famous Thor Quality and Thor Factory Service!

BEST DEAL YET

for Builders, Contractors and Architects!

Now you can take care of the major appliance needs of your customers by dealing with one dependable central source of supply - Thor! Whatever your requirements call for, Thor can supply it! Thor offers a combination that will fit practically any requirement or budget with famous THOR quality plus unbeatable prices under special "package" deals! Ask about the deals-now!

these advanced New Thor Appliances will advance your sales of New Homes!

Firm.

City

ARCHITECTS! BUILDERS! CONTRACTORS!

Without obligationsend for full details New!



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Chicago 50, Illinois

I'd like to see your deal - no obligation, of course.

Title

Street State

I'm a

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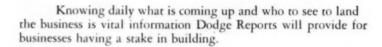
☐ Kitchen Remodeler.

THOR CORPORATION Chicago 50, Illinois

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Dodge Reports users have insured themselves against the loss of good business opportunities. They know what is new each day. They save the time and money wasted by others in tracking down rumors and making routine calls . . . because they always know who and where their prospects are and when they are ready to talk business.

Building business on Dodge Reports is the simple, low-cost, positive way that the leading firms in construction have used for over 60 years . . . among them your competitors.

You insure your business against every other type of loss. Why not insure against the loss of business . . . the loss of the business *you might have had* is a factor of importance in the growth or prosperity of your business.

For details about Dodge Reports and how you can insure that you will have the opportunity to get the business you want—write today for the free booklet . . . "Dodge Reports—How to Use Them Effectively."



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Dept. AB-653, 119 W. 40th St., New York 18, N. Y.

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EVERY BUILDER

should have these



Prepared as a service to builders, these "Window Installation Manuals" will be a real help to any builder who installs or is responsible for the installation of residential aluminum windows.

Written in simple, easy-to-understand language and illustrated with dozens of drawings, these 2 manuals show in step-by-step procedures what to do and what not to do in the handling and installation of aluminum windows. They show you how to save money and be assured of a first-class job.

One manual covers casement windows, the other covers double-hung windows. Both are Free for the asking.

Just mail the coupon below, or write to Dept. AB-6, Aluminum Window Manufacturers Association, 74 Trinity Place, New York 6, N. Y.

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JUNE 1953

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Get the line designed for Building and Plastering Contractors—



It's sturdy, sensible scaffolding made by experts to outlast hundreds of jobs and sell at down-to-earth prices. Consists of hardware only. Lumber not furnished.



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A MODERN MIRACLE IN LOW-COST HOUSING WITH...

Hotpoint

All-Electric Kitchen and Home Loundry



Pear Stamford, Connecticut, the Suburban Development Corporation has completed its Cedar Heights project on a beautiful river site in a natural wooded area. Each lot of one-half acre minimum size is fully landscaped. Here is suburban living at its best.

Every house offers hardwood floors . . . Foldoor walls . . . Ceramic tile bathrooms . . . fireplaces . . . Rusco prime sash windows . . . double shingles . . . Briggs fixtures . . . Delco oil heat, and full insulation. These are quality features ordinarily found in homes selling far above the \$14,490.00 to \$17,500.00 range of these homes.

But above all, the crowning touch that creates the modern miracle in these low-cost homes is their Hotpoint All-Electric Dream Kitchens and Home Laundries. The basic homes include the sensational Hotpoint Electric Range, Refrigerator, and Water Heater.

All Cedar Heights homes are designed to allow for the installation of a Hotpoint Automatic Dishwasher-Sink and a Hotpoint Automatic Clothes Washer and Dryer. Here is proof that modern electric living can be enjoyed in low-cost homes as well as in stately mansions.

Today's buyers are demanding homes that offer better living ... electrically. Join the builders who stand out above the rest ... whose homes sell faster because they offer more ... with Hotpoint All-Electric Kitchens and Home Laundries.

Each home is equipped with a Hotpoint Electric Range, Refrigerator, and Water Heater. Provision is made for a Hotpoint Dishwasher-Sink and Automatic Washer and Dryer as optional purchases.



... Pacemaker of Progress!

RANGES . REFRIGERATORS . DISHWASHERS . DISPOSALLS. . WATER HEATERS FOOD FREEZERS . AUTOMATIC WASHERS . CLOTHES DRYERS . ROTARY IRONERS . CABINETS . DEHUMIDIFIERS

HOTPOINT Co. (A Division of General Electric Company) 5600 West Taylor Street, Chicago 44, Illinois

First Showing!...



Standard Duty Cylindrical Locks and Latches*

The "Stillemane" is another many piece of Russian Crafts manship from its precision-made parts of present steel to modern design and durable finish. It has regard, additionated steeling features that put it in a class by itself madern the nufactualing methods and equipment. You tary recommend the "Stillemaner" for fine homes and small commercial buildings with full assurance that it will prove "the economy of quality" year in and year out.

-

Attractive Styling Precision Construction

The clean, crisp design of "Stilemanor" knobs is sure to appeal to the most discriminating tastes. It has plenty of "eye appeal" and "buy appeal". Now available in wrought brass...later, in bronze or aluminum...all popular functions...includes entrance door set with large escutcheons.

Some of its constructional features include: dual bearings on each knob to assure rigid knob assembly and prevent knob wobble; brass to steel bearings; self-aligning thrust bearing on knob spindle; latch retractor that glides on ball bearings for smooth easy action and long life; knob retainers concealed behind rose; reversible in field without using key; exclusive Russwin ball bearing, 5 pin-tumbler cylinder on all entrance door sets; all parts are precision-made...interchangeable.

Be sure to see the new "Stilemanor" line. Check and compare all its features. It's a "standout" for increasing sales and good will. Russell & Erwin Div., The American Hardware Corp., New Britain, Conn. "Stilemener"
340 entrance
door set has
turn-button inside, cylinder
outside and tamper-preof dead
locking latch.
330 ... same as
340 but without
dead locking
lotch.

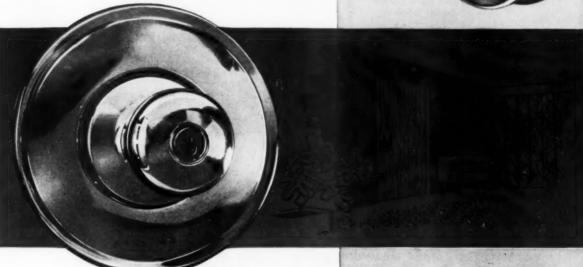


"Stilemanor"
320 bathroombedroom-set hospush button,
automatic releasing mechanism
and emergency
key provision.
322 same as
320, no emergency key but
has auxiliary
latch.



"Stilemanor"
310 passage
door and closet
set operates by
knob either side
at all times.





SIMPLE INSTALLATION

Only two holes to bore . . . all alike for every door.

New, handy installation aids . . . available to simplify work.



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Here's a
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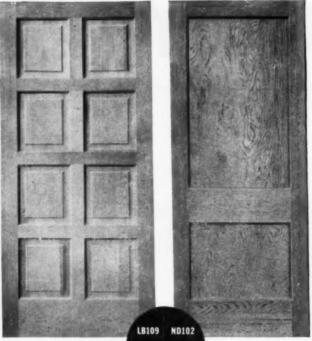
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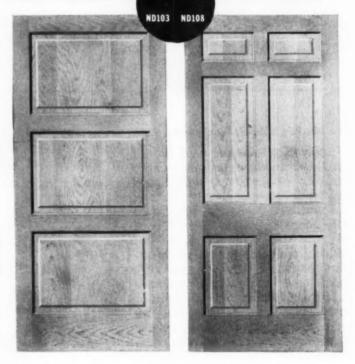
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MODULAR PRINCIPLES

ease complex problems

chapter 17 — how to frame a gambrel roof

By Griffith S. Clark

GAMBREL roofs present more complex problems than gable or hip roofs. This condition is partly compensated for by the use of smaller stock sizes of dimension lumber. These members are more easily handled in the field than the larger stock sizes.

Purlins

Two pieces of 2x4 dimension lumber are used to make the purlins. If there is any variation in the size of this dimension lumber from the actual 15/8x35/8 inches, or if the pieces are twisted and do not spike together properly, care must be taken to size them to a constant dimension. When spiked together they should measure exactly 31/4 inches across (twice the actual end measurement of 15% inches). The width should be sized a constant 3% inches. This sizing is very important, since the end cuts of the rafters which fit around the purlin are made to these dimensions.

In most instances, the ceiling height (or section height, which is the same thing) will determine the location of the purlin. When doing this, the horizontal distance of the vertical plumb location of the purlin's interior face should be in a modular dimension. Then the rises of each pitch can be assigned.

Determining Rafter Runs

To determine the run for rafter No. 1 in the gambrel roof sketch on the next page, the bottom of the purlin is set at the bottom edge of the ceiling joists. In a dropped plate condition at the eaves, run A1 is equal to the section height plus 10 inches, divided by the assigned rise. If a raised plate condition is found, A1 equals the section height divided by the assigned rise.

The run of rafter No 2 will be equal to half the nominal over-all span minus 1 inch, less the run for rafter No. 1, less the bearing point of 3¹³/₁₆ inches. These formulae appear in case No. 1 at the bottom of the accompanying page of sketches.

These lengths are obtained from the common rafter column of the Wilson Rafter Table (American Builder, Jan. 1953, pages 203-209). They represent only the length from control points, and are not the total length of the rafters. Details of cuts are determined from the following formulae and apply to all cases:

H dimension equals F1 minus 35/8

M is derived from run of D for rise No. 1 in tables

D is equal to 12 times H divided by rise No. 1

This entire condition is caused by the ceiling height being the control point, and the run A1 will be fractional.

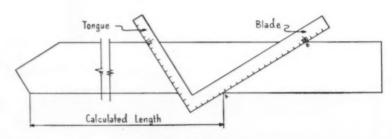
Length of Rafters

Case No. 2 assumes that run A1 is assigned in a modular dimension and pitches for rises of rafters Nos. 1 and 2 are assigned. Since run A1 is assigned, the length of rafter No. 1 is taken directly from the common rafter table for the corresponding pitch. The distance of run A2 will equal A minus A1 minus 313/16 inches. Length from the control points of rafter No. 2 will then be taken from the roof rafter table for the pitch assigned.

End conditions beyond the control points are invariably the same.

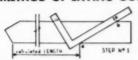
The condition at the eaves end of

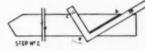
(Continued on page 192)



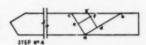
Detail of framing square

METHOD OF LAYING OUT PURLIN CUT FOR RAFTER No. 1







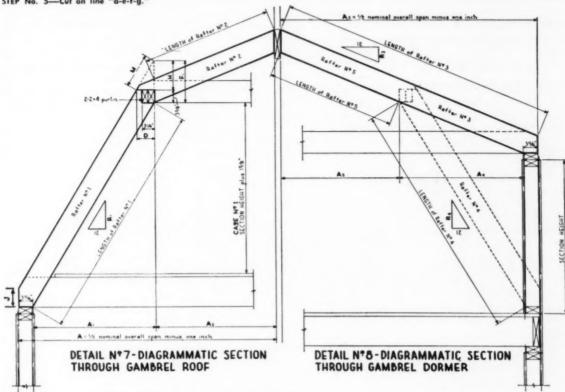


- STEP No. 1—Lay off calculated LENGTH from heel point and set square as shown. Mark line "ab." STEP No. 2—Move square into position shown and mark line "ac." STEP No. 3—Lay off "ad" $=3\,\%$ " and "ae" $=3\,\%$ ". STEP No. 4—Mark lines perpendicular to "ac" through "e" and perpendicular to "ab" through "d"

intersecting at point "f."

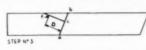
-Cut on line "a-e-f-g."



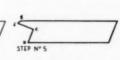


METHOD OF LAYING OUT PURLIN CUT FOR RAFTER No. 2









- -Lay off calculated LENGTH as shown. Set square as shown and mark line "ab."
- STEP No. 2—Lay off "ac" = 3%" and draw "ce" perpendicular to "ab."
 STEP No. 3—Lay off "cf" equal to calculated "D" dimension.
 STEP No. 4—With square set at R₁-R₂ (e.g., 20"-5") mark line "fg."
 STEP No. 5—Cut on line "a-c-f-g."

COMPUTATIONS FOR LENGTHS AND RUNS OF GAMBREL ROOF RAFTERS

CASE No. 1 (see Detail No. 7).

Bottom of purlin set at bottom of ceiling joists; R1 and R2 assigned.

Dropped Plate Detail.

Raised Plate Detail.

Raised Plate Detail.
$$A_1 \text{ in feet} = \frac{\text{SECTION HEIGHT}}{R_1}$$
 and $A_2 = A - A_1 - 3 \ 13/16''$.

Note that lengths derived from Runs A₁ and A2 are lengths to control points and not over-all lengths. Details of cuts may be determined from formulas below. These formulas apply to all cases:

H = F1-3 %".

M derived from Run D for R1 in tables.

$$D = \frac{12H}{R_1}$$

CASE No. 2 (see Detail No. 7).

A₁ assigned a modular dimension; R₁ and R₂ assigned.

Raised or Dropped Plate Details.

$$A_2 = A - A_1 - 3 13/16"$$
.

Cuts and lengths are determined as in CASE No. 1 above. CASE No. 3 (see Detail No. 8).

SECTION HEIGHT known; R3 and R4 assigned.

Raised Plate Detail.

A₄ in feet =
$$\frac{\text{SECTION HEIGHT}}{R_4 - R_2}$$

Dropped Plate Detail.

ropped Plate Detail.
$$A_4 \text{ in feet} = \frac{\text{SECTION HEIGHT} + 10''}{R_4 \text{-} R_3}$$

Lenths of Rafters Nos. 3, 4, 5 are derived from Runs Aa, A4, A5, respectively. Cuts are calculated as in CASE No. 1.

Note:—All cuts and lengths shall be laid out with steel tape and square.

(Continued from page 190)

rafter No. 1 and at the ridge end of rafter No. 2 correspond to end cuts for common rafters. The condition at the purlin would change only when the stock size of the dimension lumber changes. Careful examination of the instructions which follow for making a layout of the rafter cut for rafter No. 1 will reveal the changes necessary if dimensions other than 2x4 purlins are used (see also step 3, top of sketch page).

Cutting the Rafters

In laying out the template (pattern) for rafter 1, first scribe the level cut of 313/16 inches for bearing on the second plate. Next lay out the J dimension (see gambrel roof section on sketch page) for the cornice treatment to correspond to the dimension shown in the Wilson Rafter Table for the pitch assigned. The intersection of the interior modular line and the level cut is the bottom control point.

From this point, lay out with a steel tape the exact dimension for the length of the rafter. With the tongue of the framing square on 12 inches against the top edge of the rafter and the blade set on the inches of rise per foot on the top side of the rafter, scribe line ab, as shown in step 1, top of sketch page.

Reset the framing square so that the scribed line ab lays against the inner edge of the blade, and the outer edge of the tongue is at point a. Scribe the length ac (see step 2).

Mark on ab the distance equal to the vertical depth of the purlin, which will be ad. On line ac measure the distance of twice the thickness of the dimension stock used for the purlin (3¼ inches if 15%-inch stock is used), as shown in step 3.

Mark lines perpendicular to ac through e and perpendicular to ab through d, as in step 4. These lines will intersect at f.

Make the first cut from g to f (steps 4 and 5), then cut f to e and a to e in that sequence.

In a set-up for a multiple operation with a radial saw, gfd in step 4 would be cut next after the level cut was made on the same saw set but against a stop—the distance of the computed length plus the vertical depth of the purlin. Cuts fe and ea would be made with a countersunk dado in one operation (see descripof cutting a "birdsmouth" in last month's *American Builder*). Rafter 1 can thus be laid out accurately.

Use of modular design has now started to function in standardizing the length and placement location of the level cut and the location in place of the purlin. It also allows a procedure to determine the control points of the rafter, starting with the level cut at the eaves of $31\frac{3}{16}$ inches.

In laying out the purlin cut for rafter No. 2, the following procedure, based on the five steps illustrated across the bottom of the sketch page, may be of great assistance:

Step 1—From a piece of rafter stock, make the ridge cut so that it corresponds to the assigned pitch of

NEXT MONTH

Readers of these articles on modular construction have been presenting many interesting queries. In discussing some of these problems, the July article will be, in part, a review and clarification of modular control. Later, this series will deal with technical details.

rafter 2. From the heel of this ridge cut, lay off the calculated length as determined by the assigned pitch. This distance is taken from the rafter tables for common rafters. With the distance established as a base, place the square as shown and scribe line ab.

Step 2—Reverse the square and lay the tongue on the line ab just scribed so that 35% inches up from a on line ab, the line ce can be drawn perpendicular to ab. This cut will bear on the top face of the purlin.

Step 3—On line ce just drawn lay off cf equal to the calculated D dimension

Step 4—Set the square at rise 1 minus rise 2, which is shown here as 20-inch rise in 12 inches for rise 1 and a 5-inch rise in 12 inches for rise 2 (20 minus 5 equals 15). Then mark off fg.

Step 5—Cut on line ac, fg and fe. In a multiple house operation, fg would be cut first and fca would then be removed with a countersunk dado.

Gambrel Dormer

The gambrel dormer presents no problem, as the section height is known, and the rises for R3 and R4 are assigned. In the diagrammatic section through the gambrel dormer on the sketch page, the run for common rafter 3 is equal to half the nominal over-all span minus 1 inch. The length will be taken from the rafter tables and the end cuts will conform to the common rafter.

In a raised plate detail (Case No. 3 on the sketch page), the run for rafter 4 will be equal to the section height in feet and inches divided by the rise assigned to R4 minus the rise assigned to R3. In a dropped plate condition, the distance for A4 will be equal to the section height plus 10 inches, divided by the assigned rise to R4 minus the assigned rise to R4 minus the assigned rise to R3. The remaining run to be determined, A5, would therefore be the total distance of A3, minus the combined run of A4 and $3^{13}/_{16}$ inches.

All end cuts are calculated exactly as described for rafters 1 and 2.

Shortcomings

Gambrel roofs are not used today as frequently as in years gone by. Two contributing factors to their unpopularity are design and construction. In design, eave storage space is eliminated. This is not a profitable or happy condition for the owner. In construction, they usually involve about double the labor required for a gable or hip roof. It would be wise to consider these factors before designing a roof for appearance only.

Sheathing and shingling of the sudden rise areas in a gambrel roof are made more expensive by the required use of a suitable scaffold. Often the end rafter, or "show rafter," is actually faked to give the appearance of rafter 4 on both the front and rear elevation. In such an instance, the section height would remain the same except for the 16-inch space cut out for a sloped ceiling to conform to the under surface of the show rafter.



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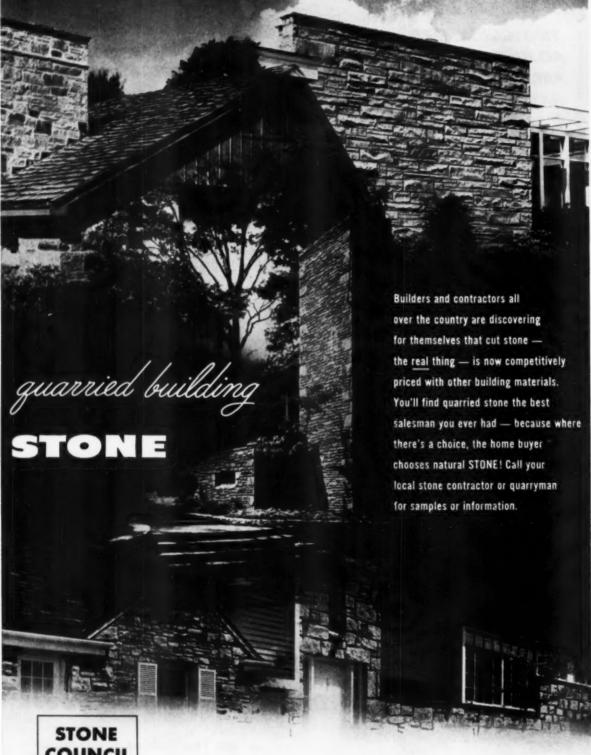
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2 HELPS PREVENT EFFLORESCENCE

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FIGURE 1

This kind of brick work offers the best protection against leaky brick walls. All joints are full, and the face brick are backplastered with waterproofed mortar before the back-up brick are laid.

FIGURE 2



Prepare two slabs of mortar, one with Brixment and one with ordinary cement-and-lime mortar. After mortars have hardened, seal a lamp chimney to each of the mortar slabs, using wax or candle grease, and fill with water.



After 24 hours, note how much water has gone into and through the non-waterproofed mortar, and how little water has gone into or through the Brixment mortar.

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Horizontal nailers located on the posts back up the siding. No battens were used over the joints

pole barn construction shrinks square-foot costs

Pole construction for barns is sweeping the farm world. Reason? Its low square-foot costs. Cost of a recently constructed unit was \$1.19 a square foot. The structure was part of a loose housing dairy system built by the Bergum Brothers of Black Earth, Wisconsin, for a farm near Madison.

The cost of the 3,456 square-foot barn was \$4,128. Construction and equipment for the complete plant of barn, milking parlor, milk room, and paved lot totaled \$12,728. The combination of all the construction amounted to 4.392 square feet or \$2.67 per square foot, exclusive of the 8,000 square feet of paved barn

lot. Concrete paving costs were twenty cents per square foot.

Pole Construction

Pole construction utilizes pressure-treated cedar poles set five feet into the ground and tamped with earth. Experts believe the poles will last a minimum of 35 years. Poles supporting the exterior walls are 17 feet long and stand 12 feet above the ground. Poles at the center of the structure are 22 feet above the ground level. The supporting units are set on 8-foot centers.

Framing is little more than dimensional lumber nailed to the poles to provide rigidity and bearing for the roof and sidewall. Purlins and knee braces support the rafters, while nailers on the exterior sidewall poles back up the vertical siding. Battens were not used over the joints. The space between the boards provides ventilation.

Finely ground limestone is used inside the barn for the flooring material. Drainage is not a problem, as the straw bedding soaks up the liquids. A sloped grade away from the buildings disposes of surface water. The barn lot is concrete.

Milking Plant

A shed type milking plant joins the pole barn. It has a concrete

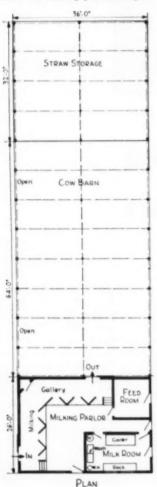


Framing members are nailed to the pressure creosoted poles as support for the skin wall and roof covering



Floor for the pole barn is finely ground limestone. When packed it gives a suitable floor covering at little expense

Barn and milking plant floor plan



foundation and standard insulated framed walls. Windows in the plant are double glazed. The south wall has glass block for natural light.

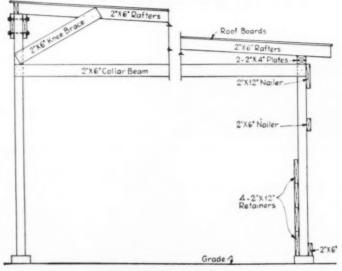
The milking parlor has four "L"type stalls, elevated 24 inches above
the concrete floor. The stalls are at
grade level. Two sliding doors allow
cows to enter and leave the parlor.
Nearby is a ground feed storage
bin. Cows receive the ground feed
during the milking.

The milkroom is separated from

the parlor by a concrete block wall. Humidity in the milk room is controlled by a ceiling ventilating fan operated by dual controls. A stoker timer switch operates the fan four minutes each half hour. A humidity control can also actuate the fan if the humidity becomes excessive.

Heating for the milking plant is forced hot water through fin covered pipes. The 40-gallon, gas-fired unit maintains 45 to 50 degrees in the coldest weather.

Details of pole construction



SECTION THRU POLE BARN



Heat inside the barn during winter is maintained by the manure pack. Concrete barnyard is important in the loose housing system. Cows enter the milking parlor at the doorway on the right

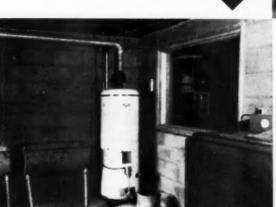


Shed roof milking parlor milk-room annex to barn. Window to right of doorway used to fill feed bin

Milking parlor view shows doorway to the ground feed storage bin and service entrance



Window separates milk room and milking parlor. Heat for the two rooms is from the water heater







Exit doorway is raised for ultimate raising of the manure pack. Pole barn abuts concrete block structure. Farmer stores ma-chinery in barn during summer



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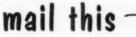
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Do you mean I can now put THORN aluminum casements in my houses at a lower installed cost* than ordinary windows?"

It's true. Add up the total cost of ordinary windows plus installation and painting. Compare it with the total cost of installing Thorn aluminum casements, which don't have to be painted.

You'll find you can now add the extra eye-appeal and buy-appeal

of Thorn aluminum windows to every house you build, at lower installed cost. It's a competitive advantage you can't afford to overlook. If your regular dealer can't supply you, write us today for the name of the nearest dealer who can.

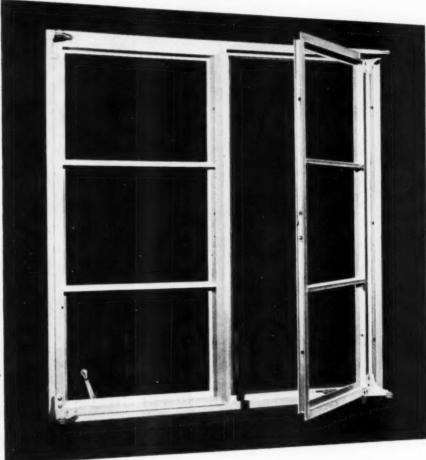


Remember . . . only Thorn gives you America's most complete line of precision built Aluminum and Steel Windows . . . more than 260 standard sizes and styles quickly available through your nearby Thorn dealer.

J. S. THORN CO.

Founded 1877 * PHILADELPHIA 32, PA.
Precision-Built Steel and Aluminum Windows

					 -
J. S	. THORN	COMPA	NY .	1	J
Phi	ladelphia	32, Pa			
			e the name of Window De		
	neares	t I HORE	window De	aler.	
Na	me	T HOR	window De	aier.	_
		at THORE	window De	aler.	_
	me	at THORE	State_	aier.	





Window shopping stops here...

The most intensive of all "window shopping"—that of the architect and builder—must stop at the sight of Reynolds Aluminum Casements.

Their superiority in design and especially in finish is outstanding.

Their flash-welded corners assure maximum rigidity and weathertightness. Their roto-operation is smooth and dependable.

And of course they have the basic advantages exclusive to aluminum windows: rustproof permanence with no need for protective painting, narrow frames of neutral tone to harmonize with any concept.

Reynolds supplies residential Casement Windows in standard, modular and western types, also Awning Windows and Double-Hung Windows . . . together with Reynolds Aluminum Screens and Storm Sash. Stop right here and write for complete 20-page descriptive catalog in A.I.A. file form. Reynolds Metals Company, Building Products Division, 2003 South Ninth Street, Louisville 1, Kentucky.

Window Specifications Start Here...
"...as manufactured by Reynolds Metals
Company...made of solid extruded aluminum shapes of not less than ½" in thickness
...special alloy of not less than 22,000
pounds ultimate tensile strength psi...
Frames shall be Zee sections 1" in depth and
½" in cross section, and will provide continuous double contact... All corners shall be electrically flash welded..."Satinized"
finish and protective lacquer coating..."

REYNOLDS ALUMINUM RESIDENTIAL CASEMENT, AWNING AND DOUBLE-HUNG WINDOWS



REYNOLDS ALUMINUM

SEE "MISTER PEEPERS," starring Wally Cox, Sundays, NBC-TV . HEAR "Fibber McGee and Molly," Tuesdays, NBC Radio Network





BILT-WELL

SUPERIOR WINDOW UNIT

The BILT-WELL exclusive

Jamb-Liner weatherstrip—

the secret of

superiority

The as Weathertight ... with only 1/10th the

The Bilt-Well Line—everything in woodwork for the home:
Superior Unit Windows • Clos-tite Casements • Nu-Style &
Multiple-Use Cabinets • Bilt-Well Sectional Overhead Garage
Doors • Superior Door Frames • Carr-dor Garage Doors •
Combination Doors • Screens & Storm Sash • Basement Unit
Windows • Shutters • Exterior Doors • Interior Doors •
Entrances • Louvers & Gable Sash • Corner China Cabinets •
Ironing Board Cabinets • Mantels • Telephone Cabinets • Stair Parts

... there's never been another window of equal simplicity for assembling—for unsurpassed ease of installing—for free sliding and snug fitting qualities. Here's a KD, bundled, semi-assembled, completely prefitted, fully weatherstripped, counterbalanced window—ready to assemble by Jobber, Dealer or Builder. Compare its superiority with any window—feature for feature, point for point. Herein will be the proof of its superiority: The patented Superior jambliner weatherstrip is the heart of the Bilt-Well Superior Window Unit. Another Bilt-Well triumph! A must in today's home. Write for a free copy of the new Superior Window Booklet.

CARR, ADAMS & COLLIER CO.

lifting effort

1064 JACKSON STREET, DUBUQUE, IOWA

American Houses reports

80 HOMES A DAY

turned out with the help of STANLEY ELECTRIC TOOLS











On the job from East to West ... made by men who make tools BEST



constant usage. They are ruggedly built. You can depend on them for precision and simplicity of operation-depend on them

daily with their assistance.

To keep up with the tortuous pace set by

mass production schedules, tools must be

fast, accurate and tough. American Houses

Inc., leading prefabricator, relies on Stanley

Electric Tools for planing, routing, sawing,

shaping-completes from 60 to 80 houses

You can depend on Stanley Electric Tools to stand up under rough handling,

to save time and money on many jobs.

There's an electric tool in the complete line to meet every need. And located nearby you'll find one of the 35 Stanley Service Stations ready to provide factory-controlled service for longer tool life.

See Stanley Electric Tools in action. Your Industrial distributor will be glad to demonstrate them, as well as assist you in selecting the best tool for any job. Or write for further information to: Stanley Electric Tools, 400 Myrtle St, New Britain, Conn.



HARDWARE TOOLS ELECTRIC TOOLS STEEL STRAPPING





ADAPTABLE TO FUTURE NEEDS OF YOUR CLIENT

... sizes and styles to fit any kitchen layout

Give your clients a feature that only American-Standard cabinets can offer—convertibility. The position of adjustable sliding shelves or drawers may be changed in any undersink or base cabinet, except the 27" base cabinet. Each sliding shelf, shallow or deep concealed drawer can be located at any of four levels. Deluxe exposed drawers can replace doors. Wall cabinet shelves are adjustable on one inch centers. These changes can be made easily—in just a few moments.

American-Standard kitchen cabinets offer you wider flexibility of kitchen planning . . . give your clients streamlined, work-saving kitchens that can "grow" with their particular needs. There is a wide variety of sinks, and base, wall, utility and undersink cabinets that can be

For further information on American-Standard products see Sweet's Light Construction File.

combined to fit any kitchen shape and dimension requirements.

Rugged construction is another client-pleasing feature of American-Standard kitchens. Made of heavy gauge steel, bonderized for long life, the cabinets are smoothly finished in a glossy white enamel that will stay new-looking indefinitely. They are perfect companions for American-Standard sinks — the finest made — which are constructed of rigid cast iron to which is fused a thick coating of acid-resisting enamel, available in five colors as well as white.

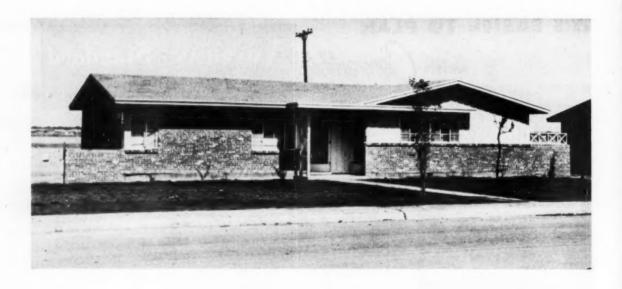
For further information about adaptable, convertible American-Standard kitchens, write for the Kitchen Products catalogue—Form No. KP-52.

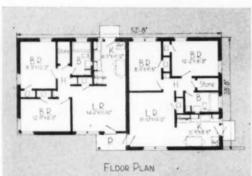
American Radiator & Standard Sanitary Corporation

Dept. AB-63, Pittsburgh 30, Pa.



Serving home and industry: AMERICAN-STANDARD . AMERICAN BLOWER . CHURCH SEATS & WALL TILE . DETROIT CONTROLS . KEWANEE BOILERS . BOSS EXCHANGERS

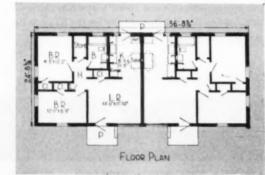




Three basic plans are used in the duplex rental project. The units resemble a single-family home and are adaptable to any community. Economies of space and back to back plumbing can be seen in floor plan

these private have





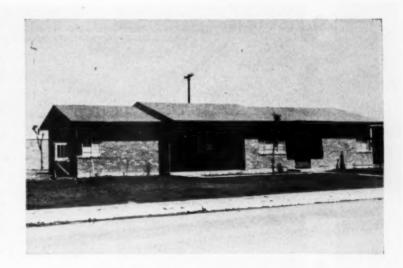


Soundproof wall between units has two conventional stud walls with blanket insulation woven between studs

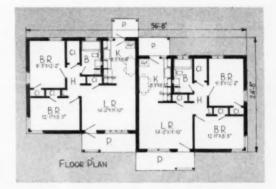
HIGH acceptance on the rental mortgage market led Amarillo builder, William C. Schutts, Jr., to finish his 264 rental units with conventional loans. He obtained privately financed mortgages on the last 120 units.

Each duplex unit carries a conventional loan of 85 per cent of the FHA appraisal. The builder meets the difference between the loan figure and the actual cost. Payments are made on these units from rentals.

The units have 711 square feet of living area and rent for \$75 a month. Included in the monthly payment is water, yard maintenance, garage, and storage facili-



enterprise rentals conventional loans



ties. Occupancy for the past year has been 99.99 per cent.

Rental Procedure

Applicants must apply in person at the rental office for interviews. They fill out an application card and are then subject to a credit investigation by the local Retail Merchants Association. "People know we are getting a credit report," stated Schutts. "If theirs is bad they usually don't come back." After these preliminaries the applicant is placed on a waiting list.

When a rental unit is available the builder collects in addition to the month's advance rent a key deposit of \$50. If and when a tenant moves the repair-handy man cleans the apartment for the new tenant and submits a report on the condition of the unit. This report is instrumental in determining what portion, if not all, of the \$50 is re-

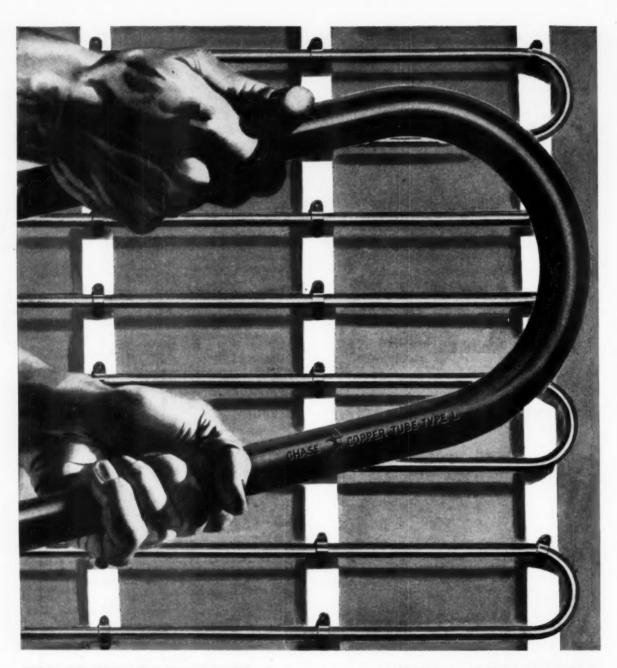
turned. Only monthly rentals are made at this time due to the migrant situation of the defense and military personnel in the community.

Cost breakdown for each living unit was:

Foundation	\$ 400
Hard materials	350
Lumber	875
Flat work	75
Labor	1,450
Drywall and paint	313
Trimout	300
Fees, permits, engineering	250
Roof	150
Garage and storage	500
Plumbing	550
Electricity	125
Heat	145
Interim financing	110
Lond	1,080
Architectural fees and supervision	350
Landscaping	75
Total per living unit	\$7,048

Brand Name Products Used

Bendix coin operated laundry
Celotex wall sheathing
Day and Night wall heater
DuPont paint
Formica counter tops
Frost oak flooring
Kentile asphalt tile
Kohler plumbing fixtures
Lennox furnace
National Gypsum wall board
Pioneer hot water heater
Redi-Hung doors
Reynolds windows
Schlage locks



FOR RADIANT HEATING choose easy-to-bend. CHASE" COPPER TUBE

For floor or ceiling radiant heating jobs, architects and builders prefer Chase Copper Tube. It's easy to bend. It's lightweight. Together with Chase Solder-Joint fittings it

makes perfect radiant heating installations. You can't beat it for quality, thermal conductivity and corrosion resistance. Write today for FREE 50-page Radiant Heating Book.

The Nation's Headquarters for Brass & Copper

San Francisco

(† sales office only)



The four bedroom. \$12,675 house has a highly stylized exterior. Interior-wise lit has many features buyers are looking for

two bath project houses easily sold

BUILDER: Jayhawk Construction Co., Topeka, Kansas

ARCHITECT: James R. Cushing, Topeka, Kansas

ENGINEERS: Paden and Bartlett THREE and four bedroom project houses with two baths are finding favor on the Topeka, Kansas market. Many months of prior planning and use of "Trade Secrets" information have enabled the Jayhawk Construction Company of that city to deliver these plus values for \$11,375 and \$12,675.

Local acceptance of the highly stylized three and four bedroom houses has been sufficiently evidenced by the sales figures. The firm sold 71 in four days. Important features of the 1953 house are in the bedroom and bath construction. Grouping of the bath fixtures allows two baths, one with a shower and kitchen backed up to each other. Another bath feature is insulation in the bath wall. This helps to deaden bathroom sounds,

Several factors point to savings for this company. They have a group of laborers, carpenters, and subcontractors that have been with them a long time. These men are familiar with the operation and



Three bedroom design is priced at \$11.375; floor plan is the same as four bedroom house





Living room is 15x17 feet. Fenestration for this and all rooms of the house is double alazing

their knowledge saves the company time. The company also has an incentive system which results in savings, as less time is needed to finish certain operations. Supervision time has also been reduced as a result.

Prefabrication of panels built on jigs at a central location is another cost saver. Panels are hauled from a stockpile to the housing site on light trailers pulled by jeeps. All ceiling and joist rafters are precut.

The builder also adds to his yearly gross by having a real estate department. The department handles all the sales of the new houses and also writes the insurance for these houses.

Another method of holding the price of the 1953 package is the builder's satisfaction in taking a small profit. Jack Sargent of the concern stated, "We realized that we must make a contribution, and have therefore figured a lower net profit." The company realizes \$779 on the three bedroom model and \$759 on the four bedroom.

The firm has contracted with an architect for all the architectural



Bedrooms have high ribbon windows to increase versatility of the furniture arrangement



One bath opens into the master bedroom, fixtures are colored. A vanity lavatory is a new fast selling '53 feature. The second bath has a shower stall. Grouping of fixtures enables both baths and kitchen to drain into the same stack. Walls facing living area are insulated to reduce sound

FINANCING DETAILS

Theore	Bedrooms
1111111	etarcoms

Selling Price . Amount of Loan													
Down Payment												,,	\$1,975.00
Loan Expense .					0	9	0	0	0	0	0		423.04
Total Cash Out	lay		×	ĸ		*	*	×		*			\$2,398.04

Principal and Interest	\$50.9
Mortgage Insurance	3.7
Hazard Insurance	4.1
Taxes (Estimated)	17.0
Total Monthly Payment	\$75.8

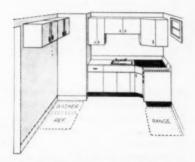
Four Bedrooms

Selling Price	
Amount of Loan	
Down Payment .	\$3,075.00
Loan Expense	428.62
Total Cash Outlay	\$3,503.62
Monthly Payment—25 year loan	
Bringhad and Interest	£52.02

Principal and Interes	t			÷	i			\$52.03
Mortgage Insurance							*	3.86
Hazard Insurance .					*			4.16
Taxes (Estimated) .			*				×	19.00
Total Monthly Paym	el	ni	1					\$79.05

work. The architect's work includes project layout, plans, elevations, details, and shop drawings for the panel construction. For the one-plan home the architect prepared 18 different elevations, with combinations of cedar shakes, cedar siding, striated plywood, tempered Masonite and vertical siding for the exterior. In addition to the material, 20 color combinations are used.

The master bedroom in the three bedroom house has its own dressing room and bath. All other bedrooms have large storage closets. The living room is square in shape with 250 square feet of space. High ribbon windows are used in the bedrooms to increase the wall space for furniture arrangements. Other extras furnished with the house are, storage car port, 8-inch concrete drive, landscaping, double glazed windows, perimeter heating, cork tile in the living room and the ball, and a 36-inch attic fan.



The compact kitchen is well planned. Clothes washer furnished with the house, is next to the plumbing wall



Interior of the storage car port shows the panelized construction of these houses. Panels are built at centralized locations hauled to the building site

COST ESTIMATES

-			Three !	led	Iroom	Four Bedroom			
			Labor	٨	Aaterial	Labor	Material		
	1	Building Site		\$	525.00		\$ 575.00		
		Engineering\$	2.00		50.00 \$	2.00	50.00		
		Equipment	20.00		35.00	25.09	35.00		
O ED	*	tion			57.50		62.5		
ub	5	Architectural Service			50.00		50.0		
ub		Streets—Curb & Gutter			480.00		500.0		
ub		Sewers—Force line &			280.00		300.0		
	8	Electricity—Water—			8.00		8.0		
		Gas					15.0		
		Building permit			13.00		10.0		
		Advertising			10.00		70.0		
		Interest	00.00		60.00	90.00	70.0		
		Supervision	90.00		80.00	90.00	05.0		
		Financing Expense			80.00		95.0		
		Insurance	95.00		25.00	25.00			
		Contingency	25.00		40.00	25.00	40.0		
		Excavation	3.00		32.00	5.00	40.0 580.0		
		Foundation & Floor Slab	305.00		491.00	325.00	40.0		
		Walks			33.00				
		Concrete Drive			195.00		195.0		
		Reinforcing Steel			20.00		28.0		
		Plumbing			965.00		965.0		
		Heating & Attic Fan			517.00		600.0		
		Wiring & Fixtures			187.00		209.0		
		Roofing	68.00		145.00	85.00			
		Siding	140.00	,	255.00	165.00			
		Gutter & Flashing			85.00		110.0		
sub	27	Framing—Sheathing— Boxing	365.00		1,005.00	423.00	1,165.0		
-uh	20	Exterior Trim	130.00		220.00	155.00			
		Interior Trim—Ratox			220.00				
100		Doors	125.00)	325.00	150.00	450.0		
sub	30	Sheetrock	222.00)	240.00	254.00	270.0		
		Painting			450.00		515.0		
		Floor Covering—Plastic			425.00		499.0		
	33	Finish Hardware &			66.00		70.0		
		Medicine Cabinet			240.00		240.0		
-	_	Metal Kitchen Cabinets			423.00		494.0		
		Windows	20.00	,	25.00	20.00			
		Truck Expense	15.50		83.00	20.00			
		Insulation	13.30		160.00	20.00	160.		
		Washing Machines Finish Grading &			100.00		100.		
500	3	Planting			90.00		100.		
sub	41	Trees			15.00		15.0		
	4	1 Washing Windows & Final Cleanup .	30.0	0	15.00	35.00			
	4	2 Misc.—Labor & Ma- terial	50.0	0	25.00	55.00	30.		
	4	3 Ins.—S.S.—etc	130.0			140.00			
		4 Tax 2 % Material	. 30.0		100.00		125.		
			275.0	0		290 0			
	4	5 Overhead	275.0	-	35.00	290.00			

Three Bedroom	Four Bedroom
Material	\$ 9,651.50 2,264.00
10,596.00 Net Profit 779.00	11,915.50 759.50
Selling Price\$11,375.00	\$12,675.00



Various materials, roof lines and color create architectural variations. 1953 buyers will pay slightly more than \$7,000

design and low cost good formula for '53

BUILDER: Jaydee Builders Memphis, Tenn.

ARCHITECT: Northern & Windrom Memphis. Tenn. Smart architectural treatment makes this low cost house built by the Jaydee Builders of Memphis. Tennessee an outstanding value. The 325 square foot house plus a storage carport sells for \$7,000.

The firm's subdivision has two basic floor plans. Exteriors are varied by different combinations of roof lines, front porches, exterior materials, window arrangements and color.

To hold the \$7,000 price during the Regulation X period, the

builders eliminated finished floors. Owners completed that job themselves or had the building firm complete the job. They paid cash for this extra.

Firm head, Manny Dlugach, at a NAHB "Trade Secrets" meeting explained how he could deliver these values. He believes he gets a better and faster job by employing subcontractors for every operation except grading.

Subcontractor units include the subcontractor and one or two men.



Living room and dining alcove. Owner can select interior wallpaper and paint

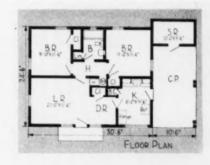


Kitchen is compact yet well planned. Backed up plumbing holds costs down



Water heater stands next to plumbing wall in hall. Heat is from wall furnace









They are paid by the job not by the hour. Dlugach believes they speed the job as time wasted is out of their own pockets. Dlugach pays for the material. Subcontractors supply the labor. Heating, electricity and plumbing are complete subcontracts including materials and labor.

Subcontractor prices are estimated by the amount of time spent in a model house. The model house also shakes down any construction bugs, develops short cuts, and new ideas.





Storage carport has 55 square feet. Washing machine was placed here

BRAND NAMES PRODUCTS USED

Benjamin Moore paints
Ceco windows
Formica kitchen counter tops
Fry shingles
General Control heating controls

Johns-Manville wall sheathing

Kohler plumbing fixtures
Lennox furnace
Miami Carey bathroom cabinet
Russwin hardware
United States Gypsum wallboard
Willshire hot water heater



BUILDER ALBERT E. THOMPSON of Indianapolis builds from 75 to 100 houses per year. He uses from three to seven "Modernfold" doors in each house—and for good reason. "The use of "Modernfold" doors greatly increases the utility of the room, especially in providing more wall space," he says. "They have proved very acceptable from the public angle and definitely help sales."

Note here how Builder Thompson adds usable space to bedrooms—a big selling point in any home—by using a steel-framed, vinyl-covered "Modernfold" door instead of the conventional swinging door on closet openings.

"Modernfold" doors save you time, labor and materials, too. They come

a: Modernfold Doors

complete, ready to be installed in 15 minutes or less by an experienced workman. No extra hardware, no cornice, no sanding, fitting or painting needed.

For full details check our distributor—listed under "doors" in your city classified directory. Or clip coupon.



By using "Modernfold" doors as movable walls, you can offer customers "extra" rooms at no increase in overall floor area, as shown here; an added selling point that offen means the sale.

Sold and Serviced Nationally NEW CASTLE PRODUCTS, New Castle, Indiana

the doors that fold
like an accordion
modernfold
by NEW CASTLE

COPYRIGHTED NEW CASTLE PRODUCTS 1953

City......State.....

No. D-102 fireplaces back to back

In this modern California home the builder has placed the fireplaces that serve the living room and the adjoining den back to back. This method invites economy and ease of construction. The hearth of the fireplace in the living room is on a plane with the finished floor of that room, while the hearth of the fireplace in the den is raised 16 inches above the floor line. The raised hearth in the den can be used as a seat when the fireplace is not in use.

The flues above the smoke chamber can also be placed back to back, or can be angled to fit alongside of each other. The character of the chimney above the roof line would, to a great extent, determine the position of the flues.

The use of Crab Orchard stone as the finished veneer for both fireplaces and the adjoining areas, with its variations in color shades, provides a quiet, rich, mellow effect, that requires no embellishments.

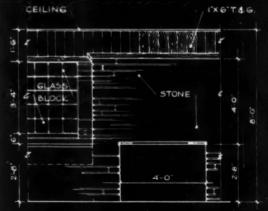
A glass block panel serves as an attractive divider between the den and the living room. This block panel, by transferring light from one room to the other, helps to brighten both. It also serves as the background for the built-in bar in the den and the planter adjoining the fireplace in the living room.

AMERICAN BUILDER'S BETTER DETAIL PLATE

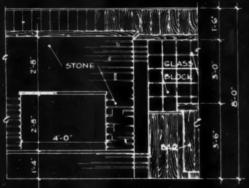
Detailed by K. Roderick O'Neal, A.I.A. for American Builder

. NO. D-102 FIREPLACES BACK TO BACK .



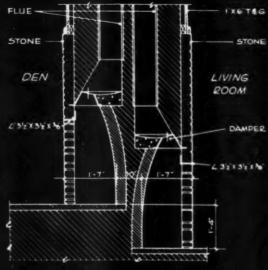


Elevation (LIVING ROOM)

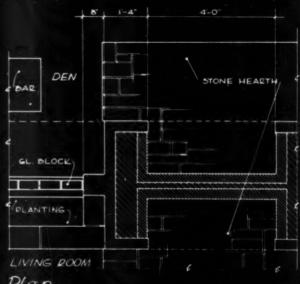


Elevation (DEN)





Section



Plan



Stock Up...on **FIR-TEX Asphalt Impregnated** INSULATING SHEATHING

Your customers save-you profit-with Fir-Tex Asphalt Impregnated Insulated Sheathing.

BUILDERS AND CONTRACTORS save time and labor because Fir-Tex Sheathing goes on quickly...covers large greas fast.

HOME OWNERS save on fuel bills and maintenance costs because Fir-Tex insulates as it builds.

YOU profit more because Fir-Tex has all the advantages your customers want and need.

- It insulates and builds simultaneously - at only one cost.
- It seals buildings against heat,
- cold, wind, dust, and noise.
- It furnishes greater bracing strength than lumber.
- It is clean, light, easy to handle.
- It is termite proof.

The large sheet type, 25/32" thickness, is certified to comply with FHA Circular No. 12. No corner bracing required.

FIR-TEX



cular presen

INTERIOR FINISH

Exclusive Sales Distributors DANT & RUSSELL, Inc. Portland, Oregon



No. G-43 store front ... entry details

The floor-to-ceiling show windows used in this remodeling job, permit full view of the store's interior, and also provide a flexible area for display purposes. This meets the requirements of this chain store organization for whom the front of the building was remodeled.

The front of this remodeled building above the metal awning bar and up to the second floor window sills. is faced with a dark colored polished granite approximately four inches thick. The surface of this area provides a good background for the neon letters which spell out the name of the store, without any additional metal in the sign exposed to

Area below the awning recess is lightweight metal bars and glass, with tempered glass doors set in metal frames. Recessed reflectors used for lighting the show window space and entrance lobby are placed flush with the plaster ceiling above.



"REMEMBER HOW THE OWNERS LOOKED OVER OUR SHOULDERS WHEN WE BUILT THE MAIN HOUSE?"

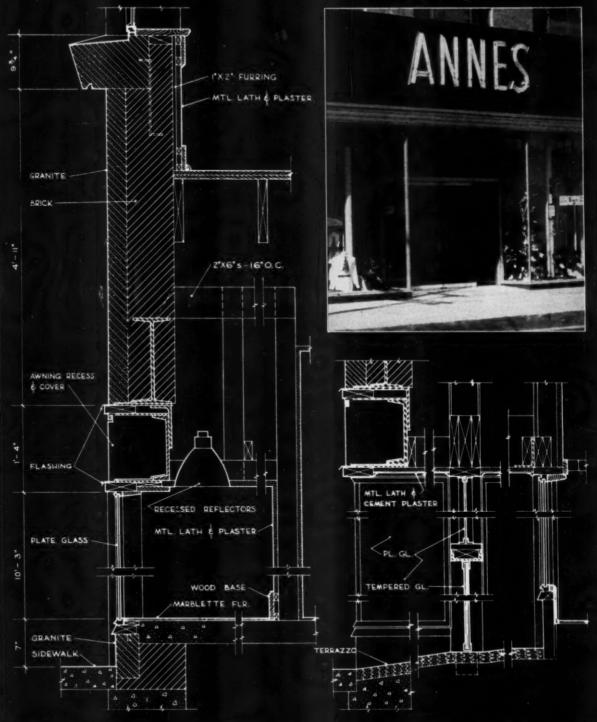
AMERICAN BUILDER

AMERICAN BUILDER'S STORE FRONT DETAILS

Designed by Sidney C. Finck, A.LA., Chicago, Ill.

Detailed by K. Roderick O'Neal, A.I.A. for American Builder

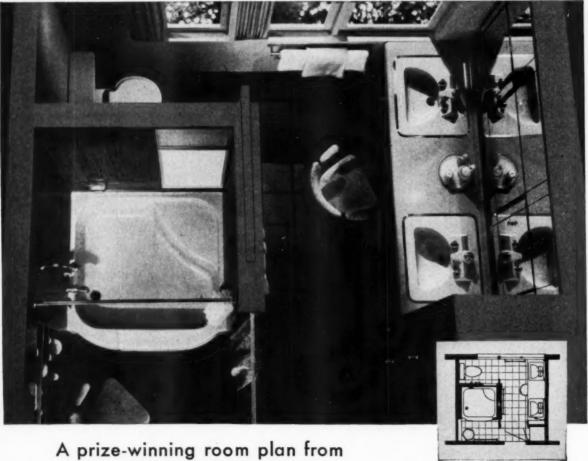
NO. G-43 STORE FRONT ... ENTRY DETAILS. . .



Section Thru Front Wall ... Section Thru Entry ...

CRANE'S COMPARTMENT BATHROOM

... a new idea that helps sell homes



Crane's national architectural competition

Here's one of the many new ideas that came out of Crane's national architectural competition.

We call it Crane's Compartment Bathroom.

By careful planning, the designer has provided the efficiency and privacy of two bathrooms at little more than the cost or space of one-a room that as many as four different members of the family can use at the same time.

See bow privacy is obtained. A sliding door shuts off the Crane Drexel water closet. A draw-curtain does the same for the Crane Neuvogue tub in the bath and dressing area. And instead of the usual single lavatory, there are twin Crane Marcia lavatories installed in a trim counter-top with cabinets.

The Compartment Bath is typical of the many new and practical room ideas introduced by Crane. Details of this room, including suggestions for decoration and furnishing, are available in an "Idea Folder"-plus a whole book of 46 other original ideas-a valuable aid in helping your prospects visualize and approve new room arrangements. Just ask your Crane Branch or Crane Wholesaler for the Crane Sketchbook of Ideas and Idea Folders.

CRANE CO. SENERAL OFFICES: 838 SOUTH MICHIGAN AVE., CHICAGO 5
VALVES . FITTINGS . PIPE
PLUMBING AND HEATING



BUILDER:
Peters Construction Co.,
Milwaukee, Wisconsin

ARCHITECT: Fritz von Grossmann, Milwaukee, Wisconsin

Interior columns bear on concrete piers. Area makes attractive planter. Plants are kept in copper planting boxes to protect wood columns. In background is the hobby tool display area



Column supports lintel across front of building. Note angle iron reinforcement at column base

here's a way to get the NEW LOOK with wood and glass

UNUSUAL wood construction has produced a dramatic facade for the specialty sales building of Louis Best, Milwaukee, Wisconsin lumber dealer. Timbers, framing members, and one-inch dressed lumber were bolted, nailed, and supported by guy wires to accomplish an end result which dramatizes merchandise and induces sales.

Concrete block, plate glass, and lumber are combined in the construction. The dramatic parapet and advertising pylon were made of wood. The two-inch members used in the construction of the pylon columns were bolted together on the job. Each of the five bolted timbers is of a different width ranging from $9\frac{1}{2}$ to $11\frac{1}{2}$ inches. Pylons are



Dramatic lacade of lumber dealer's specialty building is constructed of wood. Cement block and glass are the other materials used

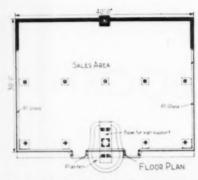
braced with 4x4's. The free form background for the neon sign has 1x12's nailed to a 4x4 frame. Four guy wires brace the pylon against lateral movement.

Three of the four columns rise from the interior of the building. There an attractive Bedford stone planter surrounds the footing area. This colorful planter dramatizes the interior.

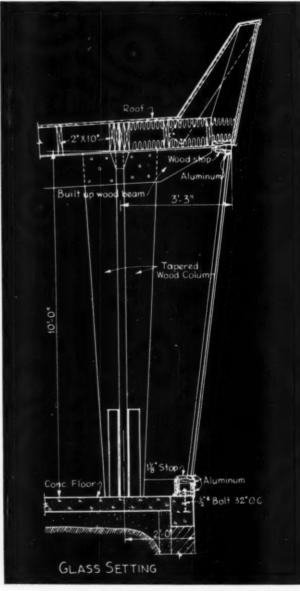
The parapet is constructed on lookouts cantilevered to the rafter. One-inch sheathing was nailed to the lookouts and covered with waterproof paper. The channel design of the parapet was produced by fitting a 11/sx111/s inch rabbeted board to 1x8's which were previously nailed to the parapet.

Rafters were framed nine feet on center and left exposed. The wall material is 4x8 sheets of insulation wall board. Ceilings are of striated plywood. Floors are asphalt tile. Lighting fixtures are fluorescent strip lighting units running the width of the building. Additional spots and outdoor fixtures illuminate both the exterior and interior at night.

The building was erected across the street from Best's lumber yard. Sales are up ten-fold for kitchens, appliances, and hobby tools. Best's kitchen volume has reached \$15,000 a month.

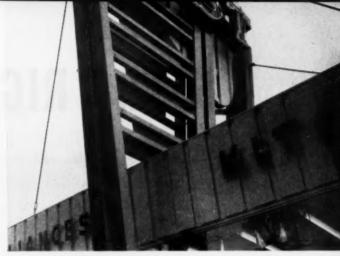


The 30x40 foot building has little concrete wall area. Most of the building is enclosed by plate glass. Post and beam framing is an 9-foot centers. Removable panel in concrete wall at the rear of building makes additions possible

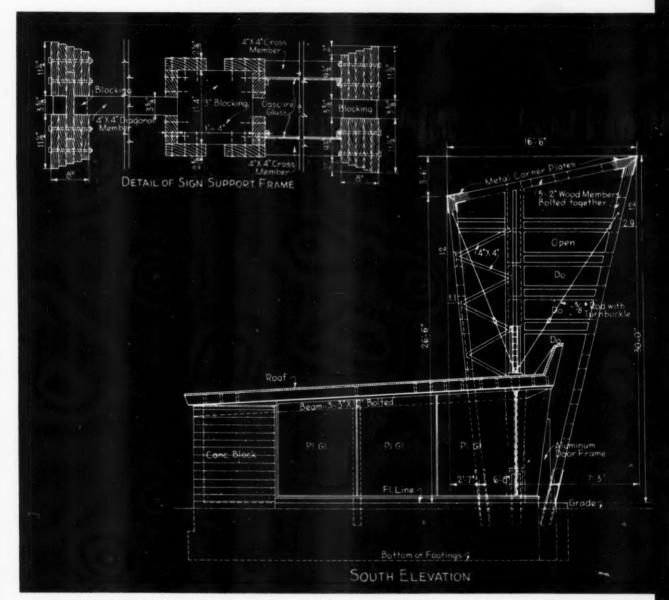




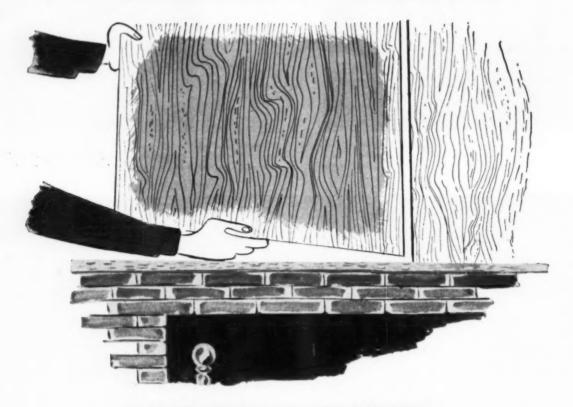
Small desk is used by the sales force. Appliance lines are displayed in this area



Close-up photograph shows detail of rabbeted wood parapet. Pylon is made of five laminated 2-inch wood members of varying widths. Bolted 4x4's are the cross members



IN THE RIGHT HANDS



RODDISCRAFT PLYWOOD LOOKS LIKE A MILLION - COSTS COMPARATIVELY LITTLE

In the hands of a good builder, Roddiscraft plywood can perform near miracles. Used economically and with good taste, it's a silent salesman that looks like a million but costs less than other "extras" that have far less sales appeal.

Roddiscraft has them all - fine hardwood plywoods, domestic and foreign - Fir and Pine, Redwood - specialty plywoods such as Knotty Pine, Craftwall, Panawall, Plyweave, Parquetwall, Cedrela.

Look at your walls — your prospects do. And, remember, a Roddiscraft paneled wall never has to be re-done. No periodic painting, papering, scrubbing, patching. What a sales story!

NATIONWIDE Roddiscraft WAREHOUSE SERVICE

Cambridge 39, Mass. • Charlotte 5, N. C. • Chicago 32, III. Cincinnati 4, Ohio • Cleveland 4, Ohio • Dallas 10, Texas Detroit 14, Mich. • Houston 10, Texas • Kansas City 3, Kan. Los Angeles 58, Calif. . Louisville 10, Ky. . Marshfield, Wis. Miami 38, Fla. • Milwaukee 8, Wis. • New Hyde Park, L. I., N. Y. . New York 55, N. Y. . Port Newark 5, N. J. . Philadelphia 34, Pa. • St. Louis 16, Mo. • San Antonio 6, Texas San Francisco 24, Calif. • San Leandro, Calif.

NATIONAL HOME MONTH

September 1953

Created and Promoted by AMERICAN BUILDER

NATIONAL HOME MONTH

YOU GET

More House

FOR YOUR MONEY TODAY

How to

All Year 'Round

By tying in with 1953 NATIONAL HOME MONTH promotion



The MODEL HOME is the greatest sales device for selling Homes

The Perfect Program for Manufacturers whose products flow through the established distribution channels

More House

Make 'em Want it ...

then follow through and SELL

RENT PAYING



At \$60 a month, for instance, a renter pays out \$18,000 in 25 years and has nothing but regrets and a stack of rent receipts to show for it. Rent is an out and out expense—it goes on and on—year after year. You become less and less secure. You always live in constant fear that your lease won't be renewed, or renewed at higher rentals.

HIGH COST OF RENT RECEIPTS

The renter has no security. He and his family move every few years and usually pay a higher rental with each move. His children feel insecure—moving from school to school, church to church—losing old friends—always having to start all over making new friends. And when the renter reaches middle or old age, he is worse off. His earning power is on the decline, yet his expenses remain the same.

HOME OWNERSHIP

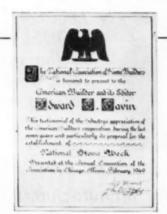


For the same \$60 a month, the renter can get a mighty fine home designed to his special needs. Home ownership helps maintain a decent standard of living. It ANCHORS his living costs—turns rent-paying into home-savings. At the same time, the new home owner always has the feeling that each month he is gradually reducing his mortgage and getting closer to owning his home clear and free.

REASONS FOR BUILDING NOW

You protect yourself against increasing rents. Prices are right—may go higher.

Interest rates and financing charges are lowest in history. You make low monthly payments like rent; but instead of going to the landlord, these payments pay for your own home. A Home is your best protection against inflation or a boom that means higher rents and prices, as well as higher wages. A home continues to provide shelter and security no matter what happens to economic conditions.



SEPTEMBER IS THE MONTH ...

when public attention across the country will be centered on home planning and building, home furnishing and remodeling. September is National Home Month—an extended observance of the famous National Home Week idea fathered by American Builder's editor, Edward G. Gavin, in 1948.

In the five years since its inception, the National Home Week idea has proved to be the most potent sales builder the light construction industry has ever had. Last year, an estimated 3,400 demonstration homes were shown in Home Week promotions organized by local NAHB chapters in over 60 key cities. Direct sales were estimated at 11,200 houses. An unestimated additional number of houses were shown by industrial retail lumber dealers and builders in communities not served by NAHB chapters.

This is the time to be busy with promotion plans in your own community. The chart on the opposite page shows the value of this promotion.

Here's the way it works

n Worth

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33

Linlo Rock Nobi

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Ookland, Col

Rochester, N. Y.

Poul Poteraburg

Salt Lake City ***

South Bend, Ind.

Syrocuse, N. Y.

ludes Endicor and Johnson City

Washington, D. C. Westchester Co. N. Y.

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Toxos

Long Island, N. Y los Angeles

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23

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161

In

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\$240,000 \$2,000 to \$35,000 \$100,000 \$250,000 \$20,000 \$20,000 everege \$12,500 to \$16,000 \$2,000 10 \$35,000

2000/811.)

10

350

\$700,000

\$620,000 \$10,600 to \$50,000

\$11,000 average

\$8,500 to \$35,000

3000(831.)

143

100+

\$380,000 \$830,000

\$1,220,000

\$3,800 10 \$43,000 \$750,000

\$23,000 \$500,000

\$1,300,000

\$9,500 to \$40,000

\$2,000,000 \$6,850 to \$40,000

\$22,500 average

\$150,000

\$8,000 to \$50,000 \$7,50,000

\$460,000

\$9,000 to \$46,000

\$11,500 Overage

\$80,000

\$4,500 to \$13,500

\$10,350 % \$30,000

\$1,250,000

\$546,000

\$455,650

\$350,000

\$1,500,000

\$360,000 \$220,000

\$625,000

\$850,000

\$500,000 \$10,000 to \$45,000

\$230,000

\$1,000,000

\$800,000

\$\$15,500

92

30

The chart shows some of the participating cities in the 1952 National Home Week promotion. The results speak for themselves. Make your community one of the leaders in this best of all sales tools



HOME DEMONSTRATION

The Model Home is the greatest sales tool for Builders and Dealers. It is their one great opportunity to combine their talents with the modern materials and equipment of manufacturers to show Mr. and Mrs. America, the best home values for the money.

CLOSING THE SALE

Once today's building values have been thoroughly demonstrated and explained, thousands of renters and owners of older homes become prospects for new homes. "You get More House for Your Money Today," will sell for



MR. DEALER...
MR. BUILDER...

Now it's your Move ...

Here is the greatest merchandising idea in all home building history. It brings the prospects to your place of business— the Model Home. This program doesn't have to be limited to National Home Month. The idea is good anytime. It's a year-round sales opportunity.

How to Organize a National Home Month in your own Town If you are a Builder If you are a Dealer

No community is too small or too large to participate in National Home Month. No solicitation of funds necessary—no trick promotion. Merely focus public attention during National Home Month on the houses you already have to show. The AMERICAN BUILDER folders shown below explain how, in co-operation with your retail lumber dealer, you can stimulate public interest in home ownership and remodeling. If you wish, send for both folders—and give one to your lumber dealer.

National Home Month is a natural, inexpensive, made-to-order merchandising and public relations activity, designed to make money for all lumber dealers all year round. The folder shown below describes 4 simple outlines to help you organize demonstrations to fit your operation either alone or with your builder customers.

PLAN NO. 1 PLAN NO. 2

For dealers who build homes or act as contractors. For dealers who offer design, financing and supervising services and work with local contractors.

PLAN NO. 3

For dealers who confine their services to selling materials to builders and home owners.

PLAN NO. 4

For dealers who will have no houses of any kind for demonstration purposes.

Tie into the greatest merchandising idea in all Home Building History

MAIL COUPON for these AMERICAN BUILDER Manuals AMERICAN BUILDER 79 West Monroe St., Chicago 3, III. Send me your Manual on How to Plan Home Demonstrations 1 am a | Builder; | Dealer | Send me one of each Manual My Name Firm STREET City State

226



These Manuals show you how

Each of these folders—one for the Builder, and one for the Dealer—described in simple language, Home Demonstrations that have proved successful in many parts of the country. Send for your copy today.

AMERICAN BUILDER



4 Powerful Reasons why costs go down with CHEVROLET ADVANCE- TRUCKS on the job

EXTRA POWER WITH ECONOMY! More hauling power, greater economy! That's the result of new 7.1 to 1 compression ratio of improved Loadmaster engine on 5000 and 6000 Series heavy-duty and forward control models—optional on 4000 Series heavy-duty trucks. Thriftmaster engine in light- and medium-duty models provides traditional Chevrolet economy.

ENGINEERED FOR THE JOB! With Chevrolet, you buy a truck that is exactly right for the job. Not too big. Not too small. You get a truck engineered from the ground up with your job in mind—with the right tires, springs, axle, clutch and engine. You get a truck that will stick on the job day after day, and do your work at lowest cost.

BUILT TO LAST! The extra-sturdy construction of Chevrolet advance-design trucks means longer life, even lower costs. Now, Chevrolet trucks are brawnier than before—with heavier, more rigid frames, with greater ruggedness and stamina built right in. These are the toughest and the sturdiest Chevrolets ever.

THE LINE LISTS FOR LESS, TOO! With all the solid superiorities that Chevrolet offers—with all their special features and advantages—this great line of haulers lists for less than any other trucks of comparable size and specifications. See your Chevrolet dealer. Chevrolet Division of General Motors, Detroit 2, Michigan.

CHEVROLET ADVANCE-DESIGN TRUCK FEATURES

TWO GREAT VALVE-IN-HEAD ENGINESthe Loadmaster or the Thriftmaster-to give you greater power per gallon, lower cost per load. POWER-JET CARBURETORfor smooth, quick acceleration response. DIAPHRAGM SPRING CLUTCH - for easyaction engagement: SYNCHRO-MESH TRANSMISSION - for fast, smooth shifting. HYPOID REAR AXLE-for dependability and long life. TORQUE-ACTION BRAKES-on light-duty and medium-duty models and on front of heavy-duty models. TWIN-ACTION REAR BRAKES-on heavy-duty models. DUAL-SHOE PARKING BRAKE-for greater holding ability on heavy-duty models. CAB SEAT - with double deck springs for complete riding comfort. VENTIPANES - for improved cab ventilation. WIDE-BASE WHEELS - for increased tire mileage. BALL-GEAR STEERING - for easier handling. UNIT-DESIGNED BODIESfor greater load protection. ADVANCE-DESIGN STYLING-for increased comfort and modern appearance.



FREE DEMONSTRATION

PROVES YOU SAVE MONEY USING RESINIZED® SPEED-GRITS® FLOOR SANDING PAPERS

Interested in cutting costs on your floor sanding jobs? At your request BEHR-MANNING® will send its local sanding specialist to the site of your next job. He'll be happy to show you how you can get faster, cleaner jobs with less paper at less man hours per day.

He can do this because SPEED-GRITS Papers are DURABONDED® and RESINIZED. That means every keen-cutting silicon carbide grain is locked-in and remains immune to high-speed sanding heat. + Result: less loading, shedding, and limping, less cover changes. And, better, more profitable jobs. See for yourself. You name the time and place and we'll be glad to prove it. Write us today. Behr-Manning Corp., Troy, N. Y., Dept. AB-6.

For Export: Norton Behr-Manning Overseas Inc., New Rochelle, N. Y., U. S. A.

In Canada: Behr-Manning (Canada) Ltd., Brantford.



BUILT-IN RADIOS help sell your homes!

FLUSH-WALL appeals to prospective home buyers—it's novel and saves valuable space.

Easy for builders and electricians to install—fits in standard 4" partition. As easy to install as any electrical receptacle outlet.

Radio is 5-tube AC-DC Superhetrodyne. Panels to match color scheme of room.

LOW COST! Retail price only \$34.95 plus installation. Special trade prices on request. Panels extra: Masonite \$2.45. Plastic colors \$4.45.

Write for descriptive folder and specifications.

Territory franchises available to qualified jobbers and dealers.



Dept. AJU3 1012 Cleveland Street, Clearwater, Florida

here's how to get

part 4 (conclusion)

—rope life and how to stretch it

By R. C. Weaver*

Knowledge of selection, splicing, tying knots and reeving tackles contributes to more satisfactory rope service—but it will be to no avail if you do not take care of your rope properly.

As pointed out in part one of this series, the rope you use today is a carefully engineered product calling for the best in fibers expertly woven into yarns, strands and, finally, rope. Handled with a certain degree of care, it should function safely over a long period of time. Abused, it can be ruined in short order.

Here are 14 tips for increasing the life of your rope:

1. Buy the right rope. Be sure to get a good rope and one that is engineered for your job. The wrong rope will not give you the service life that you expect. Consult your supplier. He will be glad to advise on your exact need.



Uncoil properly

2. When removing the usual rightlaid rope from the coil, make sure that it unwinds in a counter-clockwise direction.

^{*}The author, a recognized authority on rope usage, is mill superintendent of the Plymouth Cordage Co., in Plymouth, Mass.

Sketches supplied by Plymouth Cordage Co., Plymouth, Mass., and New Bedford Cordage Co., New Bedford, Mass.

the most out of ROPE



Store properly

 A dry, unheated building, or a room with free-air circulation is the best place to store rope when not in use. Place rope in loose coils off the floor on wooden grating, or hang on wooden peg.



Dry properly after wetting

 A wet rope should never be stored. Make sure that it is thoroughly dry and thus avoid premature loss of life and strength.



Keep clean

5. If your rope gets dirty, wash with clean water, then dry thoroughly before storing.

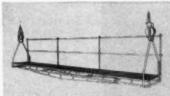


Don't overload (Continued on page 232)

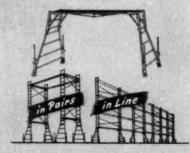




No matter what scaffolding your work requires, Bil-Jax has it . . . fixed, rolling and swing type. Get maximum safety and satisfaction. Rent or buy. Distributors in principal cities.



SWING SCAFFOLDING and METAL STAGES



MAINTENANCE TRESTLE

Write for FREE complete catalog. Address Dept. D-6

BIL-JAX, INC., Archbold, Ohio, U.S.A.



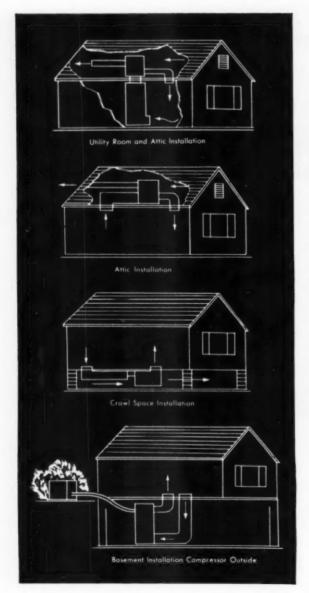
GARAGE DOOR HARDWARE

Combine the expertly-designed Allith garage door hardware with your own or any standard door. Result . . . a rugged, easily-operated overhead door that gives full and lasting customer satisfaction.

Quickly installed, standard set fits any opening up to 9' wide x 7'6" high when doors do not exceed 275 lbs. Other sets available for openings up to 10' wide x 10' high.

PROUTY, INC

DANVILLE, ILLINOIS
IN AMERICAN BUILDER for Forty-Five Years



NOW ... CHRYSLER AIRTEMP AIR CONDITIONING—

where you want it — Utility room, basement, crawl space, attic, at no sacrifice of floor space.

WITH AIR OR WATER COOLED COMPRESSORS — Warranted 5 years at no increased cost.

The sketches at left show four ways you can install Chrysler Airtemp Year 'Round Air Conditioning without using living area floor space.

The Chrysler Airtemp air cooled compressors are not only compact and flexible to apply . . . but they cost less to install and in many areas cost less to operate.

But that's not all! Only Chrysler Airtemp gives you all these important advantages:

- The Chrysler Airtemp name is known . . . through consistent national advertising.
- 15 years of residential installation experience! Chrysler Airtemp offers a time-tested package.
- Chrysler Airtemp stands behind its products! Authorized dealer network eliminates service callbacks!
- The Chrysler Airtemp 5-year compressor warranty at no increased cost creates customer confidence.

Get the complete story on the complete line of Air Conditioning for homes—Chrysler Airtemp.

Chrysler Airtemp

for HOMES, BUSINESS, INDUSTRY

Airtemp Division, Chrysler Corporation, Dayton 1, Ohio

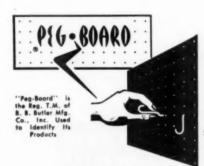


Airtemp Division, P. O. Box 1037, D	Chrysler Corporation ayton 1, Ohio	AB-6-5;
Please send full details about the Chrysler Airtemp Comfort Zone.		
Nome		
Address		Phone





in years. For, not only do they give walls a smart, new decorative treatment, but when used with any of the over 60 "PEG-BOARD" fixtures they actually create working walls. In garages, living rooms, attics, game rooms, all thru the house "PEG-BOARD" equipment enables the homeowner to have needed articles neatly arranged on the wall. All "PEG-BOARD" fixtures are instantly interchangeable without nails, screws or tools of any kind.



SEE OUR CATALOG IN SWEET'S LIGHT CONSTRUCTION FILE SECTION 4-E. WRITE FOR LITERATURE, SAMPLE KIT AND NAME OF YOUR DISTRIBUTOR.

HERE ARE A FEW OF THE OVER 60 SPECIAL "PEG-BOARD" HANGING FIXTURES









CHILDREN'S ROOM





B. B. BUTLER MFG. CO., INC., 3146 Randolph St., Bellwood, Illinois



VENTILATING Exhaust FANS

For Kitchens and other Rooms

No other exhaust fans have so much utility, eye-appeal and built-in quality at such little cost. Is it any wonder "RADIA" is specified by so many architects, builders and home owners for new construction as well as for modernization jobs? Use them once and you'll use them always!

Easy to Install . . . "Tailored" Fit!



WALL Invisi-Grille EXHAUST FANS. Automatic bead chain control. Chrome or white Durenamel finish.





DUCT, FLUE AND CHIMNEY FANS. With or without shutters. Automatic operation by wall switch.

SEND FOR COMPLETE CATALOG

. DISTRIBUTORS ATTENTION

For PROFITABLE additions to your present lines get the facts on Shepler Ventilating Fans and Heaters. Write for full information today,

SHEPLER

Manufacturing Company

PITTSBURGH 33, PA.

QUALITY FANS AND HEATERS SINCE 1921

ROPE

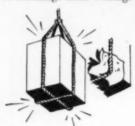
(Continued from page 229)

6. The safety factor of a rope is the ratio between minimum breaking strength and the load applied. A safety factor of 5 is recommended under ordinary circumstances. Allowance for the condition of the rope should be made when determining the safety factor,



Slack off guvs

When ropes are used as guy lines and other supports, exposed to weather, they should be slacked off to prevent overstrain due to shortening or shrinkage from wetting.



Avoid sharp angles or bends

8. While fiber rope is more elastic than wire rope, it is good practice not to subject it to sharp bends. They reduce the tensile strength of rope by putting extra strain on the outer fibers.



Sheave righ

9. Small sheaves, in addition to increasing wear on rope, increase (Continued on page 234)

Ask the man behind the "gun"

Coated optics give you this not this

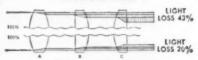


Model 3000, \$185,00°, complete with tripod.

with a White Universal Level-Transit

H ERE'S what coated optics do for you, You can put in a full day without eyestrain or headache. There's less chance for a mis-reading. You get a clear, sharp sight — not a fuzzy image. What's more, you get your reading in far less time. Check this diagram. See for yourself how coated optics pass through up to 40% more light, provide a clearer image contrast.

PASSAGE OF LIGHT THROUGH UNCOATED LENSES



PASSAGE OF LIGHT THROUGH COATED LENSES

And there's more!

White Universal Level-Transits also offer you internal focusing, guarded vertical arc and ball bearing race which insures smooth operation, even in sub-zero temperatures. Check one out on your next trip. You'll soon be convinced a White can make your work faster, easier, more accurate . . Write for Bulletin 1053, DAVID WHITE CO., 311 W. Court Street, Milwaukee 12, Wisconsin.



Expert REPAIR SERVICE on all makes, all types of instruments

*Prices subject to change without notice.



Naturally fireproof-naturally beautiful

Gold Bond ASBESTOS SIDING SHINGLES

COLOR—BIG FACTOR IN HOME SALES! Never before has color been so important to the sale of homes...especially on the outside, your customers want materials that provide the most in eye-satisfaction. Now, with Gold Bond Asbestos Siding Shingles you can give them the colors they want...exciting colors with distinctive beauty and genuine freshness.

Even their names capture the imagination—Twilight Gray, Mellow Ivory, Pheasant Brown, Poplar Green. That's Dusty Coral you see above. Notice its warmth and richness...and the fine shingle texture. Here's deep, vertical graining that compares with the beauty of expensive wood shakes. Yet, Gold Bond Asbestos Siding Shingles cost less than any other type siding material in the quality field!

And Gold Bond has these important features, too!

RUGGED—Gold Bond Shingles just never wear out. As longlasting as the asbestos and cement from which they're made, these shingles give the maintenance-free, year-after-year protection every home owner wants...save him from ever again having to paint for preservation. FIREPROOF—Gold Bond Shingles won't burn...there's no fire hazard. Sparks and flying embers can't ignite them.

WEATHERPROOF.—Sun, rain, sleet or snow do not affect the durability of this siding. Its stone-like surface resists them all!

But judge for yourself. See your Gold Bond dealer. Let him show you these unique shingles with the complete line of fresh, sales-catching colors.

NATIONAL GYPSUM COMPANY • BUFFALO 2, N. Y. Fireproof Wallboards, Decorative Insulation Boards, Lath, Plaster, Lime, Sheathing, Roofing, Siding, Wall Paint, Textures, Rock Wool Insulation, Metal Lath and Sound Control Products.

You'll build or remodel better with Gold Bond

WHAT ARE THE

THINGS ABOUT SAWS?

A "COMPLETE WORKSHOP"

-it Cuts, Miters, Planes, Rabbets, Grooves! Only Boice-Crane Makes a

Tilting- Arbor Saw-Jointer



10" tilting-arbor saw and a 6" jointer driven by one, rather than two motors. Both machines can be used simultaneously, and have exclusive features providing more capacity for their size.

Capacity, durability and precision, we believe you will Capacity, advantage and procession, we believe you will agree. That's why extra capacity, unusual sturdiness and real precision have been built into the

BOICE-CRANE 10" TILTING-ARBOR SAW

Square off work up to 13 inches wide without costly front extensions.

Precision is MACHINED into every part. Important parts, such as the ripping gauge, aren't stamped or die cast but MACHINED FOR ACCURACY. The 28"

cast iron rip fence is precision ground both sides. Large

cast iron rip fence is precision ground both sides. Large frunnions assure super-accurate blade alignment. Gauges are accurate, easy to read. The ½-inch orbor and bearings the heaviest of any 10" saw. Handles heavy overloads. The only 10" saw which can be driven by low cost standard motors or lineshaft (even and season). The matrix is estimated. lineshaft (even gas engine). The motor is entirely seplineshari (even gas engine), the motor is entirely sep-erate from machine and away from dust, keeping vierate from machine and away from aust, keeping vi-bration from the orbor, eliminating needless wear on trunnions. Powerful V-belt drive transmits up to 2 H.P. Front fence aligner saves operator reaching over blade to set. Accurate alignment on first lock-up. One-knob, fightning fast, automatic control of both front and rear rightning rost, buromatic control or both front and rear fence locks. Conveniently grouped controls quickly filt, roise and lower blade. Positive locks. Fine miterfor, revise are lower beate. For invercious, Fine mirer-gauge, with patented setting and adjustable stops for 45° and 90°. Approved safety gued shields entire saw blade, tilts with blade. Dust chute encloses blade, discharges saw dyst away from motor. Toble 20" x 27" Blades: 10" dia. mex.—Data Heeds 6" dia. x 17" wide. Depth of cut: Sow Vertical 3"; Saw Titled: 2%" Bench or floor models.

> The Saw That Was Designed With the Average Shop in Mind.

THE BOICE-CRANE 14" BAND SAW

Versatility ... cuts, sands, grinds any material ... accur. Speed ... 2 to 4 times faster. Blade speed up to 4,100 f.p.m. at 1200 r.p.m. Vibrationless. Capacity ... Up to 27" dia., 734" thick; blades 34" to 34" smoothly.

2 to 4 times faster. Blade speed up to 4,100 f.p.m.

Safety Entirely enclosed, except of cutting point. Single

onced, strong, light, molded Textolite wheels; dia;; 14";

face, 1 ...
12 MODELS Single and 8-Speed Backgeared



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through industrial supply distributors.

The only 24" jig sow that cuts materials up to 5" thick and accommodates blades 5" to 5" thick to 9" long.

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HEAVY DUTY JIG SAW

Wider range tensioner correctly tensions where range tensioner correctly rensions up to heavy duty ½" blades to guarantee a square face or plumb curve. Blades may be turned 90° for ripping long stock. Two adjustable blade guides.
50% longer blade stroke (1½").

Does accurate, close contour and straight cutting, inserted blade work, die filing, saber sawing and sanding.

Oversize, precision ground, highly palished cast iron work table (20" x 20") titts

Iwo ways.

Ball-bearing. Powerful dust blower. Overall: 39" high, 20" wide, 38" deep

BOICE-CRANE COMPANY

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Please send free literature on 🗇 Tilting Arbor Saw 📃 Saw-Jointer 💆 Band Saw 🔲 Jig Saw

CITY & STATE



ROPE

(Continued from page 232)

friction load. It is false economy to use a smaller sheave than is recommended in relation to the size of rope you are using.



Reverse ends

10. Reverse rope, end for end, periodically, as in tackle use, so that all sections of the rope will receive equal wear. When rope wear is localized in a short section, periodical shortenings present a new wearing surface.



Don't lubricate

11. A well-made rope is properly lubricated by the manufacturer and is adequately treated for the duration of its service life, Don't lubricate it yourself.



Avoid kinks

12. If the use of rope involves (Continued on page 236)

Milwaukee 61/2" HEYL Mitering Saw

New Hi-Speed Model 650

The only power-saw you need to build a home

A Contractor's Dream Comes True



You've long wanted the ONE power saw that equips you, at a low price, to handle ALL saw-cuts essential in the construction of a dwelling. Model 650 Milwaukee Mitering Saw is the answer you'll welcome. Here's why:

- Makes ALL the necessary saw-cuts, faster and easier.
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Also available . . . interchangeable specialpurpose blades as well as abrasive discs and wheels, for cutting concrete, tile, masonry, transite and metal.

"Carpenter-Square" Construction



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MODEL 650 61/2" Blade 11/4 H. P. Motor

Complete with Steel Carrying Case, \$74.50

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CORPORATION MILWAUKEE ELECTRIC

5356 WEST STATE STREET . MILWAUKEE 8, WISCONSIN

ROPE

(Continued from page 234)
continual twisting in one direction,
compensating turns must be thrown
in or out to avoid damage to the
rope structure.



Avoid unnecessary wear and abrasion

13. Surface wear may come from allowing one rope to chafe another, or by dragging it over sharp or rough objects which cut or break the outer fibers. Where rope must run over some surface, such as cleats, winchheads, etc., be sure the surface is smooth.

14. Many chemicals are very injurious to rope fibers and will cause severe rope damage. Rope should not be stored in close proximity to chemicals, especially acids or alkalies, or where contact with chemicals or fumes may result.



Protect from chemicals

Summary

Today, quality rope is strong, long-wearing and able to provide safe and dependable performance over the course of its normal life. But to get full value for your rope dollar, you've got to use the right rope for the right job; you've got to understand something about rope strengths and safe loads; you've got to have a working knowledge of slings, lashings and proper reeving of tackle; you've got to splice correctly and most important, perhaps, you've got to treat your rope with the care it deserves.

men over 45

More than six times as many men of your age will die of lung cancer this year as died in 1933. Our research scientists still don't know why.

They do know, however, that over half of those who will develop lung cancer can be saved... if they get proper treatment while the disease is still in the silent, symptomless stage. That's why we urge you to have a chest X-ray every six months no matter how well you may feel.

For more information call us or write to "Cancer", care of your local Post Office.

American Cancer Society



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INDIVIDUALIZED COOKING TOPS As many burners as you want, arranged any way you want them.

Exclusive Presteline stainless steel counter tops complete with burners.

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No stooping! No bending! Enjoy carefree cooking in a full size, fully automatic oven installed at exactly the right height.

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Please send me complete information including sizes an prices for Presteline built-in ovens and range tops.
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AB-6

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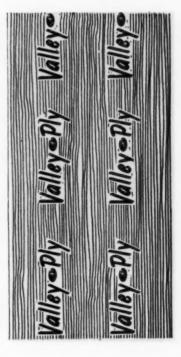
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With Valley Ply, you have the two-way strength, the nail-holding ability, the big size of panels to make your walls stronger... tighter and more rigid. You can't kick a hole through Valley Ply sheathing and the panels won't split or bend off at the edges.

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BRIGGS Beautyware Every Briggs Beautyware

fixture is precision-engineered for outstanding performance!



who know the problems of the plumber and the builder and who take every possible step to eliminate those problems.

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You can virtually forget annoying and costly call-backs, too, if you always specvide years of positive, trouble-free performance. Thoroughly acid-resistant and easy to clean, they require an absolute minimum of maintenance.

Styled to please the eye and to blend harmoniously with any interior decorating scheme, Briggs Beautyware always makes a hit with the folks who use it, too.

Make your next job a Briggs job. You'll have a satisfied customer-and when you check your savings, you'll always choose Briggs!

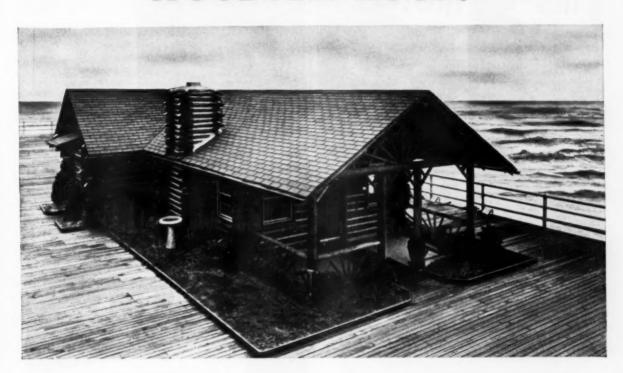
BRIGGS BRASS FITTINGS

are precision-engineered, too. Durable construction and attractive, modern appearance make these sparkling, tarnishproof chromium plated fittings a vital part of every Briggs Beautyware installation.

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WOODTEX ROOF!



This model house—on a pier out over the Atlantic Ocean — was roofed with WOODTEX Asphalt Shingles. They were subjected to rough, tough weather all year long—nor easters, the sun's blazing heat, vicious high winds, freak storms, and a salt-saturated air 24 hours a day. Result? Not a shingle was lost or damaged—the roof was as snug and secure as

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ACQUISTICAL TILE INSULATION FIBERBOARD

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Designed for today's home requirements!

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Seamless drawn stainless steel sinks and sink bowls for every purpose.

> These are lifetime products - no costly replacements.

Legion has the largest assortment of seamless drawn stainless steel sink bowls in the United

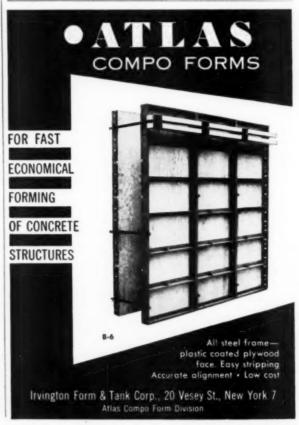
Single, double and triple flat rim bowls in assorted sizes can be used with all types of tops - formica tile, linoleum, plastic or stainless steel. Hard wearing sink tops - designed for homes and apartments. Solid stain.

> less steel or stainless steel over %" plywood base (Pat.)

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Kausline FACTORY ASSEMBLY

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BUILDING

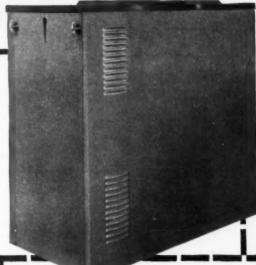
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SAVES TIME...

Factory assembled, completely wired ready to install. It is only necessary to hook on the plenum, mount the burner and run the hot wire and fuel oil line.

SAVES MONEY...

Servicing is quick and simple with all controls on the front for one spot adjustment and a big service door makes the burner easily accessible.



The Kaustine "LOW BOY"

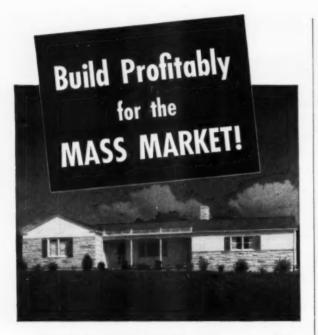
These fully automatic oil fired Low Boys are designed for cellar installation. There are three factory assembled models delivering 85,000 BTU's, 95,000 BTU's and 100,000 BTU's. Larger units up to 250,000 BTU's are shipped knocked down.



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PEASE-FABRICATED HOMES can be delivered to any building site accessible by truck or rail. There are no restrictions. VA and FHA approved.

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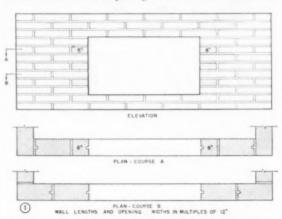
EASE WOODWORK COMPANY • Pease Fabricated Homes Division 921 Forest Avenue • Hamilton, Ohio

layout and bonding of "SCR BRICK" walls

In this fourth article in our series on the "SCR brick," we call time out from discussions of various types of windows, and talk about layout and bonding of the new unit, mostly around openings.

It has been assumed in building the "SCR brick" wall that center running bond has been used, following general practice to date. Since the nominal thickness (through the wall) of the "SCR brick" is one-half its length, center running bond is recommended. One-third bond can be used only if a norman brick (four inches in nominal thickness) is used at the corners.

The "SCR brick" is a modular unit. Therefore, this article will concern itself only with its use in structures in which the wall lengths and opening widths are in multiples of the four-inch module. If the design permits it without hampering space arrangement and the location and size of openings, it is recommended that

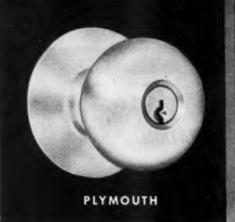


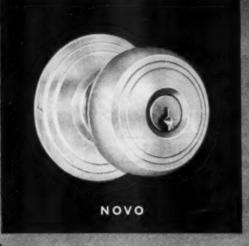
all wall lengths and opening widths be made multiples of 12 inches. As Fig. 1 shows, when working to multiples of 12 inches the number of supplementary length units required are reduced to a minimum. In this case it is necessary to cut only half units (nominal 6-inch) for use in alternate courses at the jambs. Elsewhere only full units are required. In this detail and in all others that follow, the cut units shown in the elevations are shaded.

In laying out a modular "SCR brick" wall, the layout should proceed in a counter-clockwise direction, starting from the left corner of each outside wall face with a full 12-inch length unit and a 6-inch length in alternate courses. The reader will note that in all of the details illustrating this article, that procedure is followed.

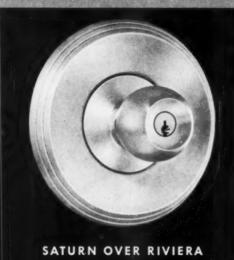
Fig. 2 illustrates the bonding that is required at the jambs of wall openings when the wall length to the left of the opening is in multiples of 12 inches, but the

(Continued on page 245)

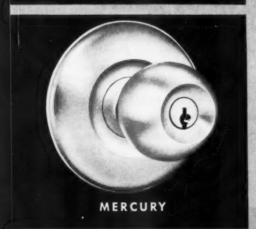












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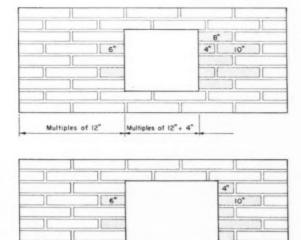




.. "SCR BRICK" walls

(Continued from page 242)

(2)



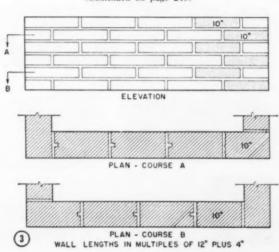
opening widths are in multiples of 12 inches plus four inches and 12 inches plus eight inches (for example, 3 feet 4 inches or 3 feet 8 inches). In this case, the left

Multiples of 12" + 8"

jamb remains the same as shown in Fig. 1, but the jamb details for the right jambs are different. Note that more cut units are required here.

When the overall wall length is in multiples of 12 inches plus four inches (41 feet 4 inches, for example), a nominal 10 inch long closure unit is necessary in each course at the right end of the wall. This condition is shown in Fig. 3.

Fig. 4 illustrates the jamb conditions for the three opening widths when the wall length to the left of the openings is in multiples of 12 inches plus four inches. Note that the same three jamb conditions that are (Continued on page 246)



Multiples of 12"



You know that Rim Night Latches should be used in every house you build. It is not a question of where, but which latch you choose to install. This Eagle auxiliary lock with a five pintumbler mechanism and solid brass bolt has the style, plus the security that every new house deserves.

There is no rim night latch that can equal the appeal of this 3547N with its glistening streamlined nickeled knob on its rich black case. It is the height of superiority in Rim Night Latches.





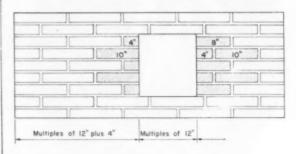
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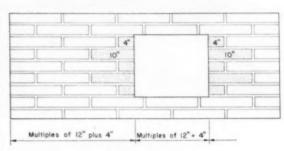
"SCR BRICK" walls

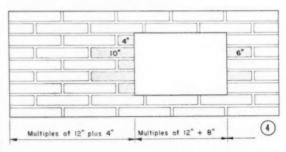
(Continued from page 245)

shown in Figs. 1 and 2 are shown here, but in different combinations.

As shown in Fig. 5, when the over-all wall length is in multiples of 12 inches plus 8 inches (41 feet 8 inches, for example), a nominal eight inch long closure unit





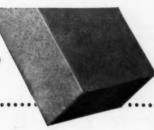


is required in each course at the right end of the wall. Note that in Fig. 5 and Fig. 3 the 8 inch and 10 inch long closures are so used as to permit the return to be started with a 6-inch and 12-inch face in alternate courses in order to maintain the center bond.

Fig. 6 is similar to Fig. 4 except that the wall lengths to the left of each opening are in multiples of 12 inches plus eight inches. The corresponding right-hand jamb construction is shown for each of three opening widths.

It will be noted that in one of the jamb arrangements, both a 4-inch and a 10-inch cut unit are required in the same alternate course. In Fig. 7 is shown an alternate bonding arrangement for such a jamb. The 4-inch and 10-inch cut units are replaced with a full 12-inch unit and a 2-inch closure.

Fig. 8 illustrates how these supplementary length units (Continued on page 251) A winning combination...



Any Good Quality Brick and

Medusa Brikset

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Here's a winning combination for better masonry building. Any good quality brick and Medusa Brikset Masonry Cement! The selection of a mortar cement for brick construction is highly important. It can make or break the appearance of the wall. Then choose wisely by insisting upon Medusa Brikset.

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With the "Easy-Drain" overflow pipe (available at moderate cost) you
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SMART WHITE ENAMEL STEEL CABINET Here, truly, is the last word in advanced laundry tub design! This cabinet is rugged steel in all gleaming white baked enamel that will stay new looking for years!

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NO OTHER TUB CAN COMPARE WITH THIS NEW "WESGLAS" CABINET LAUNDRY TUB WITH THE TUB ITSELF MADE OF FAMOUS "FIBERGLAS."

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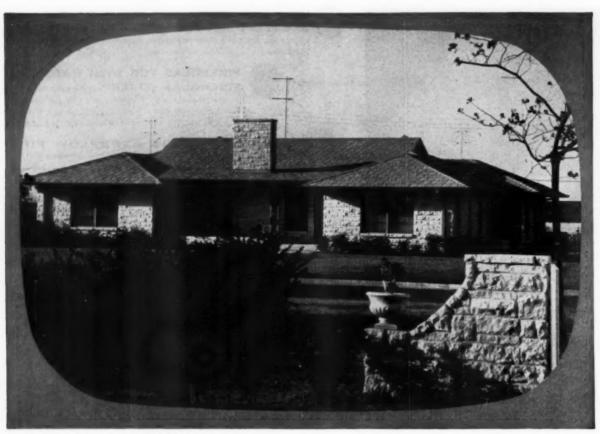
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Here's a laundry tub so light that handling it during shipment and delivery into the home, is no longer back-breaking.

ROOM TO WORK TO INSTALL EASIER AND QUICKER...

Simply lift out door, and there is a full size opening through which plumbing can be done without loss of time, money and patience.

Overflow pipe, cover and faucet priced separately by master plumbers.



Residence roofed with "Century" \$30 Surf Green Asbestos-Cement Shingles.

THIS BETTER ROOFING WILL HELP YOU SELL MORE HOUSES

"Century"

ASBESTOS-CEMENT ROOFING SHINGLES

"Century" roofing gives your houses outstanding selling features that impress any prospective buyer. For these remarkable shingles offer durable beauty at low cost. Here's what we mean:

As far as durability goes, "Century" asbestos-cement shingles are almost stone-like in their permanence. They resist sun, rain, vermin, and insects. Temperature changes won't harm them. They won't burn, rot, or corrode.

As for beauty—well, you have only to see these attractive shingles gracing a fine home to appreciate why home owners find "Century" shingles so appealing. K&M makes them in several attractive colors with various surface textures and butt lines.

And now for the important question of cost. "Century" shingles are truly economical because they go up quickly and easily, because they *never* need protective paint, because they require virtually no maintenance, because they last indefinitely.

Sound like the high-quality, low-cost roofing you've been looking for? Then get detailed information today on "Century" asbestos-cement shingles. Ask your K&M distributor to show you the complete "Century" line, or write directly to us for information.

(For your reference, "Century" shingles are illustrated in Sweet's Architectural and Light Construction Files.)

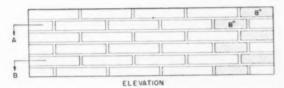
America's first maker of asbestos-cement shingles

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"SCR BRICK" walls

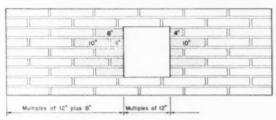
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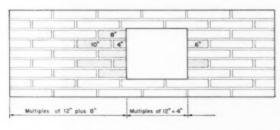


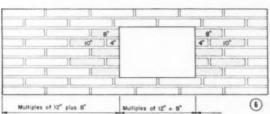




PLAN - COURSE B
WALL LENGTHS IN MULTIPLES OF 12" PLUS 8"







are obtained by cutting the "SCR brick." In each case, the cut comes at a line of cores. While the *nominal* lengths of these cut units are indicated as being 10, 8, 6, 4 and 2 inches, their *actual* lengths should be $9\frac{1}{2}$, $7\frac{1}{2}$, $5\frac{1}{2}$, $3\frac{1}{2}$, and $1\frac{1}{2}$ inches respectively, in order to accommodate the $\frac{1}{2}$ -inch mortar joint used with the "SCR brick."

Bricklayers have found that the "SCR brick" is easily cut by placing the unit on a bed of sand, or on a sandbag, and using their blocking chisel or brick "set"

(Continued on page 252)

IDAHO WHITE PINE



from the WESTERN PINE REGION

Genuine White Pine. Straight-grained, soft and even-textured, cuts and works easily and accurately with hand or machine tools, ideal for exteriors and interior trim, siding, paneling, fine cabinetwork. Takes and holds paints, enamels, other finishes beautifully.

This is but one of ten fine softwoods from member mills of the Western Pine Association. All are manufactured, seasoned and graded to exacting Association standards. Lumber dealers, builders, architects and wood users have found them dependable and best for many construction uses.



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Here's the sink frame that really clamps coverings into place to stay—seals out moisture—hugs the sink with a tight, permanent, fit. Coverings can't work loose or curl up!

Easier to install, too! Sink-Lok frames overlap edges of the covering a full quarter-inch. No close scribing, cutting or fitting of materials. No special tools needed. No mortising or rabbeting of the sink-well hole—just cut a straight-walled opening for the sink. The frame anchors in place from underneath the sink top—supports the sink itself in addition to sealing the joint between the covering and the sink. No bolts or screws through the counter top.

Sink-Lok Frames are available for flat-rim sinks of any size, with either round or square corners, for installation on wood or plywood sink-cabinet tops from 5/8" to 1" thick, covered with any material up to 1/8-inch thick. Also available for most vitreous china sinks,

Write for complete information.

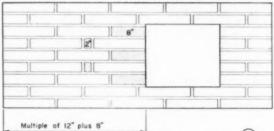


terial up to 1/e". Also available in Model No. B-725 for 2/e" to 1" plywood tops, and in Model No. C-726 for vitreous china sinks.

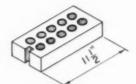
The B&T Metals Co. Columbus 16, Ohio

."SCR BRICK" walls

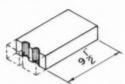
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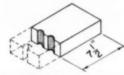
ALTERNATE JAMB DETAIL FOR WALL LENGTH OF 12" MULTIPLES PLUS 8"



FULL UNIT NOMINAL 12" LENGTH and 6" WIDTH



NOMINAL 10" LENGTH UNIT



NOMINAL 8" LENGTH



NOMINAL 6" LENGTH UNIT



NOMINAL 4" LENGTH



NOMINAL 2" LENGTH CLOSURE

to make a straight and clean cut. The "guillotine" type of brick cutter can be used to advantage also in cutting the "SCR brick" into supplementary lengths.

In connection with the laying out and bonding of the "SCR brick" in modular wall lengths, it should be pointed out that the height of the unit is such as to permit it to be laid in vertical heights of three courses in 8 inches. This results in individual course heights of 22% inches, a dimension not found on conventional bricklayer rules. However, there are modular bricklayer spacing rules available which have marked on them the course heights for a modular brick which lays up three courses in 8 inches. One of these is the "Bricklayers Modulrule" produced by Woodmark Industries, Inc., Minneapolis 16, Minnesota, and available from the Goldblatt Tool Co., of Kansas City, Missouri.

(Continued on page 254)



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SIDENCE ELEVATOR STAIR-TRAVE

"SCR BRICK" walls

(Continued from page 252)

In summary, if it is possible to have all wall lengths and opening widths a multiple of 12 inches, the problem of laving out an "SCR brick" wall is greatly simplified. This would require only the addition or subtraction of four inches in any wall length on any modularly designed job. Standard modular wood sash are available in 2-foot and 3-foot widths while steel doublehung windows are available in 2-, 3-, and 4-foot widths. In residential steel casements, the standard 3 foot 1 inch. wide sash will fit into a 3 foot 0 inch masonry opening while the 5 foot 934 inch wide window with either wood or metal surrounds can be made to fit into a 6 foot 0 inch masonry opening. Details for these windows were shown in the March, 1953 issue of the American Builder. Intermediate widths of steel casements are more adaptable to opening widths not in multiples of 12 inches.

However, complete 4-inch flexibility in both wall lengths and opening widths can be obtained with the "SCR brick," although more supplementary cut lengths will be required at corners and jambs.

Next article in this series will describe recommended procedures for installing aluminum windows in the "SCR brick" wall.



tips in using POWER TOOLS



Photos courtesy of Maxwell Dorne

Clamp a %-inch Bradford drill to the table with long bolts, two on each side. Use wing nuts so that the drill can be raised or lowered. A movable jig holds the work in place. This arrangement facilitates dowelling face frames of all kinds.



Don't waste short ends of beams—use a bandsaw to make corbels out of them. Corbelling can add a distinctive architectural detail on the exterior as well as on the interior of the house. The saw here is a Boice Crane model.



A combination of table saw and jointer can be indispensable on the job site, turning out work faster and with greater accuracy than can be obtained with hand tools. Note that the jointer in this Delta combination is mounted low enough so that doors can be run through easily. This machine is carried to the job on a trailer.

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The most successful builders know that their public appreciates real value so they build value into their homes. Kay Manor, Inc. is a good example. They tell us "... we have never used a product that gave us as much satisfaction as your Morrison Roly-Door. Every purchaser of a home in our Sylvia Park development has marveled at the finger-tip operation and modern beauty of this Steel Sectional garage door."

The lasting beauty of the Morrison Roly-Doors harmonizes with the modern trend to make the garage a part of the architectural design. It makes garages a very practical selling feature of the home. Roly-Doors can give added value to the homes you build and make your selling easier. Take advantage of their practical Selling Power. Their installed cost is low—their value high.

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The prospective home owner wants a wall tile that has all the advantages found in the NEW CORONET PLASTIC WALL TILE.



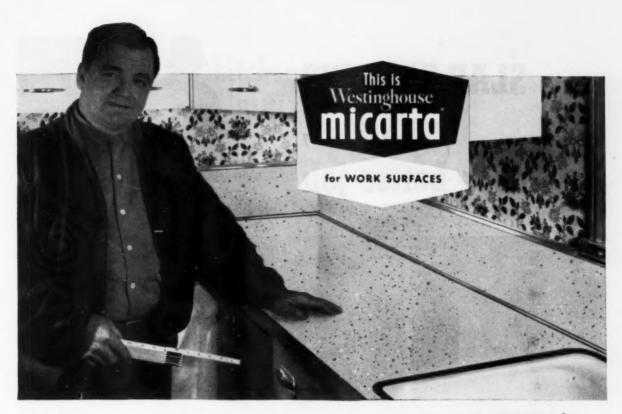
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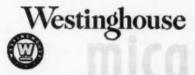
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SLAB-SANDING costs less, does better job



Bud Henson, Nathan Manilow's con struction superintendent shows the old way of scraping a slab. The hand operation took six hours for a 1.000 square foot house



An open grit silicon carbide grain paper is used to cut through the droppings



The last step is vacuuming the sanding dust so the floor will be clean for the asphalt tile installation. The vacuum cleaner is also used to clean the house before the buyers take possession



Slab sanding is the new way to clean the floor. Machine does the job in two hours

Now, builders need no longer indulge in old fashioned hand scraping to clean a slab floor before installing floor tile. A new sanding operation cuts away all droppings and substantially reduces costs. It also does a better job according to Nathan Manilow, Chicago builder, Manilow's superintendent, Bud Hensen, started the operation in their Des Plaines Villas Project in Des-Plaines, Illinois,

Manilow, like many builders, had innumerable droppings of paint, mortar, joint finishing cement, etc., on the slab when it came time to lay the asphalt tile even though many precautions were taken. It was the recommendation of the Behr-Manning Abrasive people that started him on the slab sanding operation. Henson figures the mechanized unit substantially reduces labor time and does a much better

They use a Clarke Floor Maintainer with a sanding disk and a Resinized-Speed-Grit paper manufactured by Behr-Manning.

The sanding operation is done before the final coat of paint is applied so that any touch-up (where

the machine might touch the baseboard) can be made. After the house has been sanded, the same operator uses an industrial vacuum cleaner also manufactured by Clarke to pick up all the sanding dust. The vacuum cleaner has a dual purpose as it is used to clean the house before it is turned over to the buyer.

After the floor has been cleaned the asphalt tile men can come in and lay the floor. The better concrete base has eliminated all bumps and irregularities. This sanding operation has gone a long way in reducing the number of call backs for the asphalt tile installation.

COST BREAKDOWN

SANDING

Machinery costs \$750; cost per house \$1.00 Sanding disk \$0.70 \$5.00 Labor two hours

Total

\$6.70

HAND LABOR Labor six hours \$11.00 Temporary paper covering \$ 0.50 \$11.50

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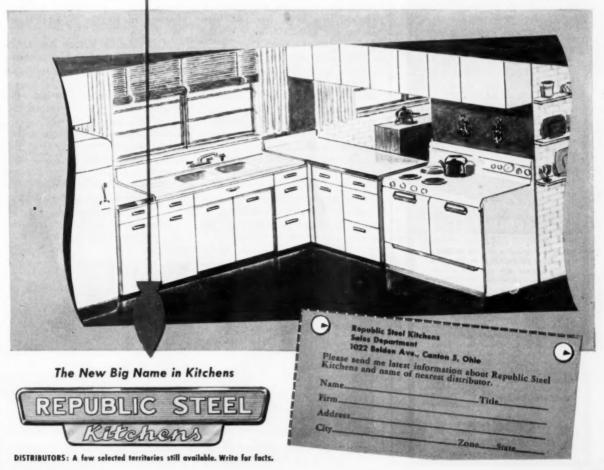
Kitchens sell homes . . . and ideas sell kitchens.

Now, Republic brings you the world's most modern kitchens to help spark fresh new home-selling ideas.

Republic Steel Kitchens are newest on the market-with new features, new styling, new everything. They offer you the industry's biggest selection of matching styles and sizes. Special purpose cabinets and plenty of accessories, too. You combine economical standard units to create "custom" kitchens. Then, you just uncrate and install. No costly on-the-job fitting. No painting.

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Learn more about these quality steel kitchens that are competitively priced. The coupon below will bring you complete information by return mail. Berger Manufacturing Division, Republic Steel Corporation, 1022 Belden Avenue, Canton 5, Ohio.





LIGHTWEIGHT CONCRETE introduced from Sweden handles like wood



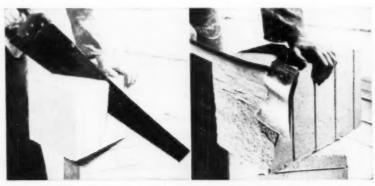
A typical Swedish home in which slabs of the new lightweight concrete form both floor and ceiling

A versatile lightweight concrete, which combines high strength and insulation qualities and can be worked like wood, has just been introduced in this country by the United States Plywood Corp.

Known as Zeprex, the product was originally developed by International Siporex AB in Sweden, where it is said to have been used successfully for 15 years as roof decking, walls, ceilings and floors in houses, hospitals, factories and other types of buildings.

According to Lawrence Ottinger, president of U. S. Plywood, who conducted a press conference in New York, the product has unusual qualities "never before combined in any one building material," including:

- Light weight—about one-fifth the weight of regular concrete,
- Structural material, self-supporting in lengths of 18 feet or more.
- Insulating quality ten times better than that of regular concrete and suitable for use in arctic or tropical temperatures.
- 4. Incombustible—(During the length of the press conference, the flame of a blow torch was applied directly against a 2-inch-thick slab of the material. An hour later, the opposite side of the piece was only slightly warm.)
- 5. An oyster-white surface, which may be left natural or decorated.
- 6. Workable like wood. Simultaneously, Ottinger reported (Continued on page 262)



Ordinary woodworking tools such as this saw and axe are used to handle the material.

Trade press reporters said it was easier to saw than wood



Let's Face the Facts about CONCRETE MASONRY

This Modern Building Material Adds Beauty and Permanence to ANY Type of Structure!

You can build concrete masonry structures in beautiful architectural designs with the assurance they will last a lifetime, Both exterior walls and interior partitions are made in many pleasing patterns by varying the styles and sizes of block. The initial cost is low and the upkeep is nil.

Concrete masonry structures are ARMORED against age, climate, fire, termites, rodents, tornadoes, hurricanes and floods. Interior walls are built with lightweight block composed of cellular aggregate which provides proper acoustics and reduces noise transmission through walls. Lightweight block are also used as a back-up material for exterior walls providing insulation against heat and cold. Wall dryness provides good health and sanitary conditions. Restful quiet is assured by sound conditioning between rooms and floors.

All Styles and Sizes Made on the VIBRAPAC

The Besser Company is a leader in promoting the Concrete Products Industry and making it a world-wide enterprise. All styles and sizes of block are made on an automatic Vibrapac machine, using One Set of Plain Pallets. Many large contractors and builders find it profitable to install Vibrapac machines and produce their own concrete block. Why not investigate? Write for Bulletin No. 86, illustrating concrete masonry units, also names of Vibrapac-equipped plants in your area.

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ser Vibrapus with Power Off-bearing Hoist. duces three $7\frac{t_0}{h}$ " x $7\frac{t_0}{h}$ " x $15\frac{t_0}{h}$ " moduunits at a time on one Plain Pallet. aller units made in larger multiples on the ne pallets. Fully automatic. Operatorely guides the hoist.



HOMES, both large and small, are built of block





CHURCHES find concrete masonry construction both



HOSPITALS are constructed with black walls as floors to promote health and safety.



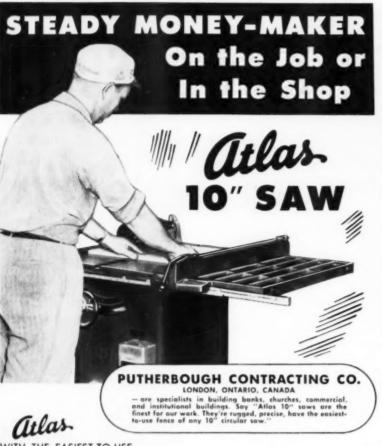
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IIFTS OFF SLIDES TO POSITION ... VERNIER CONTROL FOR HAIRLINE ADJUSTMENT...LOCKS AT BOTH ENDS!

Close-up to show details of construction of the Atlas lever-lock and vernier control.

Whether your work is industrial, commercial, or residential - you'll save much time and labor costs with an Atlas 10" saw.

This is the big, fast, rugged saw that's built with every feature to speed on-the-job sawing, speed cabinet, sash, door, and special work in the shop.

The table is big - with precisionground surface. Has 13" space ahead of blade, 301/4" from blade and fence, with one table extension. Blade cuts 31/4" deep - tilts to 45°. Arbor runs on large sealed-for-life ball bearings. Dual V-belt drive. Construction throughout is extra-heavy.

Outstanding time-saving feature and you find it only on Atlas 8" and 10" saws - is the quick-positioning fence. It slides to position — lifts off or on in an instant - lever-locks accurately and rigidly at any place on the table.

See the Atlas 10" saw at your dealers. Put it to work on your jobs this Summer. Watch it cut costs right from the start. Catalog mailed on request.

ATLAS PRESS CO.

601 N. PITCHER STREET

KALAMAZOO, MICHIGAN

EPENDABLE QUALITY TOOLS SINCE 1911

lightweight concrete

(Continued from page 260)



Wall slab of Zeprex, measuring 10x20x102 inches and weighing 350 pounds being set in place by two men in a home in northern Sweden. Liquid mastic is poured from above into joints to seal wall

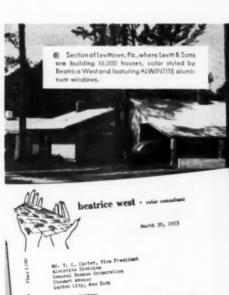
his company had purchased the National Brick Corp., which has a 220,000 square foot plant area in Long Island City, N. Y. He said the new unit will be known as the National Brick Co., a division of U.S. Plywood, and continue under management of its founder, Harold J. Levine, who will begin construction immediately of a new plant to manufacture Zeprex so that it will be on the market by the end of the year. After this factory is in operation, he continued, U. S. Plywood will establish others through the country.

During the press conference, reporters drove nails into the material. cut it with a cross-cut saw, drilled holes with a brace and bit, chamfered it with an axe. It reacted in the same manner as wood, showing greater holding power for nails.

Load, span and moisture conditions determine the thickness of the slab, but officials of the Siporex Corp. declared that a 6-inch slab can be used to build a load-bearing wall for a house up to four stories.

Composed of sand, cement, water and some chemicals, the same ingredients of regular concrete. Zeprex has a unicellular construction enabling it to float and providing a moisture barrier claimed to have less than one-third the water absorption of regular building brick.

(Continued on page 264)



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WINTITE



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Famous color consultant reports **ALWINTITE** harmonizes with all modern color decor-





Take it from a color expert, you can use ALWINTITE aluminum windows safely with any of today's modern color combinations for exteriors or interiors.

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The complete ALWINTITE line includes double-hung windows, picture windows, horizontal sliding windows, Picture-Slide windows, VIEWall picture windows and combination storm windows. Write today for our complete catalog, prices, etc. Address Dept. AB-6.

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Builders asked Morrison for a Low Price, High Efficiency, Forced Warm Air Low Boy...here it is...ready for delivery by your local Mor-Sun Dealer and Installer. Fill in the coupon and get all the facts...installation data and prices ...without obligation.

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- LABOR SAVING INSTAL-LATION...Quick...Simple.
- COMPACT... Only 46" high, 24" wide, 35" deep.
- GAS or OIL . . . Burners Interchangeable with No Loss in Efficiency.
- ADAPTABILITY... Firs Most Building Plans.

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Mor-Sun Furnace Division, Morrison Steel Products, Inc. 605 Amherst Street, Buffalo 7, N.Y.

Gentlemen: Send me all the details about Mor-Sun's new Mighty Low Boy Forced Warm Air Furnaces.

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Also menufacturers of Roly-Door Steel Sectional Garage Doors and Carry-All Truck Bodies

lightweight concrete

(Continued from page 262)



Two men handle 20-inch-wide roof slabs which are mortared together to form a solid roof. Because of the light weight, the manufacturers say far less than the usual steel support is required

Thermal expansion is said to be about the same as that of steel and shrinkage is practically nil.

Density of the product is 30 pounds per cubic foot for floor slabs, wall slabs and building blocks, 25 pounds for insulation slabs and 40 pounds for beams, which are steel-rod reinforced and up to 40 feet long.

Savings in construction costs are claimed for the material. U. S. Plywood reports it will be priced competitively with other building products used for the same purposes; it cuts structural frame work cost, requires fewer man hours to install, provides its own insulation when used structurally, does not require waterproofing, speeds up construction because it is prefabricated, requires no heavy installing machinery and needs no supplementary surface treatment.



The mineral slab undergoes a strength test. This 5x20 inch slab, 10 feet long and designed to stand a load of 40 pounds per square foot, is supporting 70 cinder blocks weighing 200 pounds per square foot. The load, 15 times its weight, deflected the slab 9/16ths of an inch

AMERICAN BUILDER

BAMBOOFOLD



NEEDS LESS SPACE THAN A DOOR! IS MORE VERSATILE THAN A DOOR! IS MORE DECORATIVE THAN A DOOR!

as Room Divides

BAMBOOFOLD is the answer to difficult door problems. It encloses, provides privacy for dining and cooking areas . . . is ideally suited for walk-in closets. BAMBOOFOLD permits circulation of air—preventing mold, odors, warpage and moths. Now being used by leading builders throughout the country.

BAMBOOFOLD is constructed of finest inside core bamboo—on self-lubricating nylon slides for easy operation. Laboratory tests have proven a minimum lifetime of thirty years. Approved by the FHA.

AMERICAN BAMBOO CORP.

General Office: 171-06 Jamaica Ave.
Jamaica 3, N. Y.
Plants: Jamaica, N. Y.—Tullytown, Pa.

Attic Stairways New, Important Factor in Small Home Sales

One of the most recent merchandising techniques in modern small home selling is the installation of disappearing attic stairways, according to officials of EZ-Way Sales, Inc., national manufacturers of stairways to utilize waste attic space.

Prior to the post-war building boom, attics were generally considered waste space. With the present-day shortage, disappearing attic stairways give complete utilization of this

1

EZ-Way Folding Stairway

waste area for storage or expansion. Prospective buyers are shopping for homes that have additional low cost space which can be utilized whenever desired. EZ-Way folding stairways provide easy, economical access to waste attic space. Many contractors are now installing EZ-Way folding stairways as "standard" equipment in new homes.

EZ-Way folding stairways, the manufacturer states, are engineered for smooth, easy operation; sturdily built, modern in appearance. They feature touch

controlled, balance spring action and are completely assembled (cuts installation time) with jamb and panel included.

Specifications: Model No: 18—rough opening, 26" x 54"; ceiling height, 7' · 9'; width of tread, 18". Heavy-Duty Model No. 22—rough opening 30" x 62"; ceiling height, 7' · 10'; width of tread, 22". Model 20—designed for truss roof construction.

Information, complete specifications and dealer locations available upon request from EZ-Way Sales, Inc., Box 300-(7), St. Paul Park, Minnesota.

(Advertisement)





Build home sales appeal with this distinctive, low-cost ceiling application. Weldtex pre-cut squares come in 12", 16" and 24" sizes. They're easy to put up, can be painted or given a natural finish.



With Weldtex, dull flat surfaces that need frequent redecoration are a thing of the past. Here the deep grooves in Weldtex add a third dimensional quality. Note the interesting Weldtex picture frame.



Show prospects Weldtex 36" exterior paneling. Won't "check," weatherproof, durable, Can be finished in any color. Grooves conceal joints and face nails. Available in 4' x 8', 4' x 9' and 4' x 10' panels.

15 million reasons why





Ready-cut 36" Weldtex siding like this in strips 48" by 15%" can be used where a dramatic horizontal effect is desired. It is easy to install in shingle style, but goes up faster than shingle-size pieces,



Here's a dramatic and pleasing wall surface using both Weldtex panels and squares. Patented Weldtex panels are available in fir, gum, and Philippine mahogany; squares in gum.



Here's the corner of a playroom designed by Fred Gerstel which shows an interesting built-in and horizontal-vertical Weldtex treatment on the wall. Note bar top of Westinghouse Micarta.

Weldtex adds sales appeal!

New Weldtex advertising to millions of home owners shows how even low-cost homes can have the extra distinction and beauty of the "wood of 100 uses"

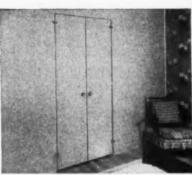
What makes home buyers tick? Today, according to the NAHB, it's the extras they receive in the homes they buy that catch their interest and imagination . . . and close sales.

Weldtex paneling by Weldwood is a low-cost investment that pays for itself in faster turnover and satisfied buyers.

When prospects come to your model homes, let them see the added distinction of a ceiling made of Weldtex pre-cut squares, or a TV room with beautiful Weldtex walls, or outside walls of Weldtex exterior siding. They'll notice the custom appearance of Weldtex-its deep, irregular grooves which add a warm three dimensional quality. They'll compare your homes with the usual run-ofthe-mill houses with dull, flat wall and ceiling surfaces. You'll come out on top.

You'll have the added sales advantage of being able to promote a nationally known and consistently advertised brand -Weldwood.

Cash in on the growing trend and demand for real wood for home design. Use Weldtex and other beautiful Weldwood products for more distinctive, faster selling homes. Complete information can be supplied at your nearest Weldwood showroom . . . or see your lumber dealer for Weldwood products.



New Novoply is the flattest panel ever made. Doors made of it will not stick, warp, rattle. Beautiful mosaic surface takes high gloss finish, adds beauty to any room.



Builders always find Weldwood products keep sales moving. Here is Plankweld, another beautiful wood in the Weldwood family of real wood for beautiful homes.

There is a Weldwood Product for every part of the home



- Concrete forms
- Wall and roof sheathing
- Cabinets and
- built-ins
- · Interior walls
- Exterior siding material
- Westinghouse Micarta for counters, table tops and bars
- Doors
- · Sub-flooring
- · Bathrooms and kitchens

United States Plywood Corporation 55 West 44th Street, New York 36, N. Y.

U. S.-Mengel Plywoods, Inc. Louisville, Ky.

DISTRIBUTING UNITS IN ALL PRINCIPAL CITIES



roply, Weldtex, and Plankweld are registered trademarks United States Plywood Corporation, 55 West 44th St., New York 36, N. Y.

FREE Please send me 24-page Contractors and Builders Book—packed full of Weldwood data and specifications. AB-6-53

Address

AMERICA'S FASTEST SELLING NEW BUILDING MATERIAL

Alsynte

TRANSLUCENT FIBER GLASS PANELS

clsynite is a national sensation. Everybody is buying it—architects, builders and home owners. Alsynite is easy to use—feather-light, can be sawed and nailed, installs like corrugated metal. Seven colors, corrugated and flat panels.



homes...for skylights, patio roofs, window walls, shower stalls, awnings, etc. Ideal indoors and out



commercial ... for store fronts, office partitions, luminous ceilings, decorative effects, signs.



industrial ... for unlimited daylighting ... skylights, side walls, etc. No framing needed.

Send me complete	Alexante information
Send me complete	Alexaite information
☐ I am interested in	n Alsynite Dealership
Name	
Company	
Company Address City	State



Crane checks close tolerances before hoisting mill-fabricated steeple into place on church top



Crane operator makes final check of equipment before lifting spire



Eighty feet of boom and jib were required to lift the steeple



Belfry supporting steeple has large steel gusset plates at corners to insure stability. Steeple was bolted to top plate of belfry

NINE STEPS

setting mill-

Mill fabricated steeple, delivered to the job site, was hoisted to lofty perch atop church in Arlington Heights, III.



Steeple was first lifted to upright position. A rope was tied to lower end of steeple to keep it from swinging



Left cable was attached at three-fourths point and to bottom beam thrust through steeple framework. Line from crane was attached to the upper end. Steeple hung almost straight in its rise

in raising and fabricated steeple



Crane swings steeple over beliry and slowly lowers it into position. Little maneuvering was required to set spire



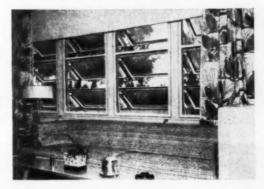
Steeple now in place is held by crane while carpenters fasten it to the beliry



Angle iron brackets are bolted to the beliry and chords of the steeple. Plate below brackets was removed before steeple began its climb

Unequalled--

For Features That Help To Sell Houses



Only Gate City, of all leading windows, Gives You All 4!

1. Easy, Torsion-Free Operation...

Positive, dual action hardware takes the work out of opening and closing windows... Easy to reach handle located below sill out of the way of drapes and blinds.

2. "No-Splash" Rain Protection...

Fixed hinge principle prevents any splash over top vent while awning type sash deflect rain.

3. Draft-Free Ventilation Control...

Slanted sash direct air currents ceilingward to eliminate drafts... Open wide and close tight, adjust to any angle in between.

4. Natural Insulation of Wood...

Fully weatherstripped wood sash and frames provide natural insulation far superior to that of any other material ... Reduce condensation, heating and air conditioning losses.

High Sales Appeal!

Low Installation Cost!

Gate City Perma-Treated WOOD AWNING WINDOWS

Pioneered by GATE CITY SASH & DOOR CO

SEND COUPON TODAY FOR COMPLETE INFORMATION

GATE CITY SASH & DOOR CO., Box 901, Fort Lauderdale, Florida

Gentlemen: Send complete Builder information on Gate City Wood Awning Windows.

Name_____Address

City_____State_____

EVERYBODY



PROFITS WITH

the completely modern Sash Balanco



BUILDES

Hidalift cuts installation time and costs because it's easier, faster to install and tension.



DEALE

Hidalift sells on sight. It's easy to handle. Builds up sales volume and goodwill.



ARCHITECT

Hidalift doesn't mar the beauty of modern windows because Hidalift is 100% concealed.



HOMEOWNER

Hidalift insures lifetime wear plus ease of operation, Increases resale value of home.

Se sure and send for the new falder which illustrates and describes Hidalit's many quality features and installation advantages.



Quality Products For Over a Contury

HIDALIFT DIVISION
The Turner & Seymour Mfg. Co.
Tarrington, Conn.

Gentlemen: Send new folder and prices on Hidalift.

Please check Dealer Builder

Address

City_____Zone_State__

"DOES A BETTER JOB THAN ANY"---SAYS THIS CONTRACTOR SEATTLE WATERPROOFING CO. Gentlemen We have been using Kay-Tile for over five We have been using kay the for over two (5) years now with the utmost success We February 20, 1952 (5) years now with the utmost success we have used it in conditions of extreme hydro. nave used it in conditions of extreme nyaro-static pressure and we find that it does a better stanc pressure and we find that it does a better job than any other product of its type that We guarantee and stand behind our work we guarantee and stand bening our work so the choice of the proper material is quite important to us The pleasant experience we have had with Kay Tite the past five years enables us to highly recommend its use either below or nignly recommend has use enner below or above grade and under any type of climatic conditions Yours truly, R W Lyman

> WRITE FOR FACTS

STAY TIGHT

KAY-TITE

PROTECTS MASONRY
AGAINST
WATER SEEPAGE

BRICK STUCCO CINDER BLOCK

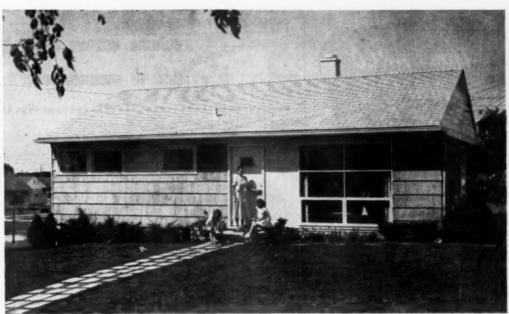
UNGLAZED TILE

WHITE

KAY-TITE For MASONRY ONLY

KAY-TITE COMPANY

EST CRANGE • NEW JERSEY
VEN FAR WESTERN STATES CONTACT RAY TITE COMPANY
17 WESTLAKE AVENUE, NORTH, SEATTLE 9, WASHINGTON



The CORONET by National Homes best seller in Cincinnati

Cincinnati's Two Best Sellers are <u>BOTH</u> **NATIONAL HOMES!**

- as reported in house+home, April 1953

In one of the country's toughest markets— Cincinnati—the best-selling houses are Nationals built by Ohio Homes, Inc. And the next best sellers are also Nationals, erected by Runck & McClure. So says an article in the April issue of House & Home entitled "The Fastest Selling Houses in the USA."





Build the best sellers in your market—build National Homes! Get all structural parts in a complete, "brand-name" package and reduce your overhead as you increase your sales and profits. Write or wire National Homes today!

Quoting from This Article:

"Two of a kind. The selling record—now a fast 20-per-month—is all the more remarkable because the National prefabs sell for more around Cincinnati, where land development costs (improvements are about \$50 per running ft.) and labor are higher than almost anywhere else in the country. Next best seller in Cincinnati is another National prefab built by Runck & McClure.

"Ohio Homes' President Harold D. Comey attributes much of his sales success to National Homes' advertising and promotion . . . Comey, in the prefabricated-home busi-

ness over 15 years, is in an excellent position to judge prefab acceptance. Says he, 'Even in a conservative community like Cincinnati the resistance is now so small that it's hardly worth mentioning.'"







Says Paul Schleicher & Sons GARY, Indiana, Housing Contractor

"SOIL COMPACTION with the Barco Rammer has been the key to earlier completions and lower costs for us," says Paul Schleicher & Sons, Gary, Indiana, housing contractor.

The Barco Rammer is a new tool with many uses! No longer is it necessary to wait for loose earth fill, or backfill, to settle—tamp it immediately to HIGH DEGREE COMPACTION under slabs...around foundations and footings...on grades...in trenches—SAVE TIME! CUT COSTS!

ASK FOR DEMONSTRATION

See for yourself — ask for our nearest distributor to give you a demonstration.

 Send for CATALOG No. 621

BARCO MANUFACTURING COMPANY

523G Hough St., Barrington, Illinois

Builders of Portable Gasoline HAMMERS and RAMMERS

volume garage sales from dealer tied to manufacturer's promotion



Typical designs of the six offered by the lumber dealer in his one delivery package promotion. Material costs are \$405 for a one car garage to \$690 for a two car unit

Lieber Lumber and Millwork Company of Neenah, Wisconsin is increasing garage sales by using promotional materials offered by Weyerhaeuser. They supplement this material with many sales devices.

All employees can become salesmen. They receive \$5 for every garage they sell. Lieber's employees tell their friends and neighbors. The result is that everyone in town knows of the promotion.

Costwise, there is no guess work on the part of the buyer. All prices are stated exactly; all materials are listed. In addition to the package price the lumber dealer has a finance plan, monthly payments shown. Bargain hunters are not turned away. The lumber dealer has made the necessary provisions to lower the cost on the one-delivery garage package. Costs are less:

 Using No. 3 dimensional lumber in place of No. 2 and better fir.

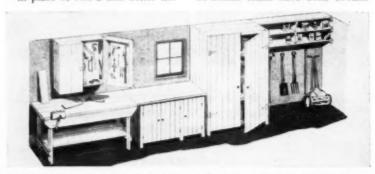
- Substituting spruce siding for clear fir.
- 3. Using roll roofing instead of thick butts.

For those who wish extras the dealer has added to the basic plan:

- A service door costing \$25 additional. It includes a 2/8x6/8-13/8 inch, five panel door complete with frame, butts and lockset.
- Additional lumber material to build storage cabinets and storage facilities.

Answers to questions asked by owner-builders have been prepared for the sales force. For instance, the number of yards of concrete needed for the floor of the six garage designs has been estimated. Material cost for each two feet of additional length or width for storage purposes has also been estimated.

Title I, FHA home improvement financing arrangements have been made through the local bank. The 36-month loans have been broken



Garage plus promotion is based on adding to a basic garage such storage facilities as storage cabinet, work bench, shelves and tool cabinet. These extras are incorporated into the two feet of additional length or width added to the basic garage

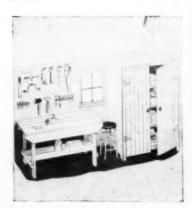
KNOW-HOW



down into monthly payments and the information is in the salesmen's hands. Carpentry and cement work can also be financed under the same plan if the buyer wishes the work done for him.

The "garage plus storage" promotion is based on increasing a standard 12x20 or a 20x20 foot garage in 2-foot length or width increments for storage facilities. Complete working plans are furnished the buyer. The lumber concern purchases plans from Weyerhaeuser. In addition to the plans, the owner-builder receives help from the lumber dealer. Yardmen, if requested, will cut a rafter for a pattern.

The package includes dimensional lumber, siding, roof boards, roofing, sash and frames, upward acting door, outside trim, reinforcing mesh, nails, primer and finish paint. Prices range from \$405 for a 12x20 to \$690 for a 20x20 double garage.





assures snug fit at bottom...adjusts screen to uneven or off-level sill.

Do Your Heavy Sawing This Easier, Cheaper Way...

New PORTER-CABLE
ELECTRIC
CHAIN SAW



Saw those girders, heavy truss members and bridge timbers in a fraction of the time it now takes you! Clear wooded

And do it all at low cost! Porter - Cable's new electric One-Man Chain Saw is the lowest-priced on the market. Initial cost is low — it's inexpensive to run — it's so simple upkeep is negligible.

construction sites in a jiffy . . . fell trees

up to 28" in diameter in minutes!

Takes the work out of heavy sawing. Saw weighs only 18 lbs. — is exceptionally easy to handle in any position. Furthermore, it pulls itself into the work. You can saw much longer — with less effort and less fatigue.

Specially designed for ease and safety. New shape and position of log gripping teeth give a firmer grip — prevent saw's bucking or jumping — eliminates pull to either side. Exclusive V-shape gives greater leverage — keeps chain off ground when saw is put down.

Built to high quality standards. Saw is equipped with Oregon® Chipper Chain—the best chain in the business. Rust-resistant hard-thormed teeth stay sharp twice as long. Husky 115 V. Universal motor, connected with power line or Porter-Cable generator provides plenty of power for the toughest kind of cutting. Heavy-duty precision ball bearings throughout. Oversized worm gears and special steel alloy chain sprocket assure years of maintenance-free operation.



Clearing lofs is an easy job with

this fast-cutting chain saw. Use a

Porter-Cable generator

when

14" Cutter Bar on the Porter-Cable Chain Saw lets you handle felling jobs up to 28" in diameter. Perfect balance means less fatigue to the operator.

	Cable
Porte	-Cable
Quality C	Lectric Tools

See this low-cost, quality built Chain Saw at your Porter-Cable dealer's. Or, mail coupon today for full information.

Parter-Cable	Machine Company
	Street, Syracuse B, N. Y.
	d to: Strongridge Ltd. London Ont.)

	ee des					new	Model	110	Chain	Saw	
als	o name	of ne	arest	deal	er.						

Name	
Street	
City	Zone State

Manufacturers of SPEEDMATIC and GUILD Electric Tools

pre-assembled sidewall cuts application time

The "Shakertown Glumac Unit" is a new pre-assembled sidewall panel that combines cedar shingles and insulation backer-board in a



Finished sidewall creates appearance of double-coursed shake exteriors

single unit. It has been designed to speed up builders' installation time.

The sidewall panel consists of a deep-grooved, factory-stained cedar shingle outercourse which is electronically bonded to waterproofed impregnated insulation backerboard. Units measure 18 x 46½ inches. They are said to eliminate the necessity of sawing, cutting, planing and fitting of individual shingles.

Application of the sidewall units is simple and rapid permitting car-



Units are packed 11 to the carton

penters to complete two operations in one, using a hammer and knife or hand saw to produce a fitted and aligned sidewall with an insulation backer-board. After a unit has been placed on the rough sheathing and building paper (nailing strips can be used in place of sheathing), the panel is then nailed in the conventional manner to complete the simultaneous application of undercourse and finished sidewall. The units are manufactured by The Perma Products Co., 5455 Broadway, Cleveland 27, Ohio.

Only 7" Saw to Rip 8 feet in 7.5 seconds!

New Porter-Cable
"Contractor's Special"

Packs More Power, Far More Speed — Than Any Leading Saw of Like Size Tested!



SEE THE NEW 7-in.
"Contractor's Special" at your
Porter-Cable dealer's. Or write for name of dealer
and full information. PORTER-CABLE MACHINE
CO., 1006 N. Salina St., Syracuse 8, N. Y.

Porter-Cable

Quality Electric Tools

MAIL COUPON FOR FULL DETAILS

Manufacturers of SPEEDMATIC and GUILD Electric Tools

Fastest . . . across the board!

In a recent series of on-the-site ripping tests comparing leading 7-inch saws, Porter-Cable's new "Contractor's Special" turned in this amazing speed record . . .

18.6% faster than Saw A

41.7% faster than Saw B

51.6% faster than Saw C

38.7% faster than Saw D

Regardless of the depth of cut or type of wood used, the new "Contractor's Special" in every instance finished the cut far faster than any of its competitors! For example, on 34" Fir Plywood, the "Contractor's Special" averaged 7.5 seconds per 8-foot cut!

PORTER-CABLE Machine Co. 1006 N. Salina Street Syracuse 8, N. Y.

(In Canada send to: Strongridge, Ltd., London, Ont.)

Please send complete specifications and performance data on new 7" "Contractor's Special" . . . also name of nearest dealer.

Name

Address



Bennett fireplace engineers . . . specialists in fireplace design for over 25 . have built into these Bennett throat dampers dozens of proven performance and construction features. Whether you're planning a conventional, single opening fireplace, or one of the "unusual" arrangements so popular today—you'll find it easier to design, easier to build with a Bennett Damper!



The famous boiler plate steel damper with the exclusive slip-joint feature, which takes up expansion that occurs when damper gets hot. 60° front slope gives sure draft. 8 sizes up to 72" wide, designed for easy lay-up of brickwork



Improved higher-front design assures better draft, better smoke passage. Sturdy cast iron construction, with either cast iron or steel valve, Precision-cast in our modern foundry, Bennett cast iron dampers have no thin spots or weak sections to give trouble. Wide range of sizes,

Seneform Universal Damper

The amazing new damper, that gives you absolute freedom of design expressionat moderate cost. Builds any one of six basic fireplace styles including projecting corners, three-sided openings, etc.

See your Bennett representative

or write Dept. C for free catalog.



booklet tells how to protect plumbing fixtures during construction

Plumbing fixture manufacturers are seeking the cooperation of all crafts to protect fixtures, lessen damage during building construction and thereby reduce annoyance to the future occupant.

Two associations, the Enameled Cast Iron Plumbing Fixtures Association and the Vitreous China Fixtures Association. have published a folder entitled "Protection of Plumbing Fixtures Against Abuse During Building Construction." This folder contains illustrations showing the correct ways to protect plumbing fixtures and offers suggestions on the proper procedure in preventing damage to them. It is available on request from either association, 1709 M St., N.W., Washington 6, D. C.

CONSTRUCTION



Faster Work With a GVP "C" IACK

- Eliminates backbreaking labor.
- Insures truer alignment and neuter finished job.
- Gives workmen compiete control durinstallation.

GYP "C" JACKS ARE SAVING BACKS

workmen can install ceiling panels all day long and not become exhausted , and workmen do a faster, neater, more satisfactory job with the new GYP "C" JACK.

The new GYP "C" JACK consists of three parts . . a 21 by 21 inch base . . . with creeper easters . . , a top springsteel spider arm for hold-

lack assembly capable of elevating a 1/2" by 4' by 12' board. The GYP "C" JACK contracts to a height of 6'0" and can be extended to a height of 9'0" GYP "C" JACK extensions are available for higher ceiting installations

Write for folder describing complete line.

GYPSUM CEILING JACK COMPANY 112 22nd STREET N.E. CEDAR RAPIDS, IOWA

BOSTROM LEVELS FOR HALF A CENTURY

Have been the most economical

No. 5 BOSTROM Convertible Level Detachable Comprecision leveling instruments on the

Used and endorsed by contractors and builders everywhere. Sold on guarantee of satisfaction or money

Carried in stock by distributors from coast

to coast. Write today for literature, prices, and name of our distributor near



Bostrom - Brady Mfg. Co. 535 Stonewall St., S. W. ATLANTA, GA.

CASH IN



RED CEDAR CLOSET LINING

SEAL-PACKAGED FAST-MOVING

Nationally Advertised



Guaranteed 90% Red Heart-100% Oil Content Our national advertising annually produces thousands of customer inquiries which are turned over to our dealers for follow-up. Here is an active market for cedar closet lining. Brown's SUPER-

CEDAR is a fast-moving, profitable item and is produced by the largest and oldest experts in the business. Sold only through leading jobbers and millwork distribu-



Write for Builders Folder and Consumer Booklet

PRODUCT OF GEO. C. BROWN & CO., Inc. GREENSBORO, N. C. Established 1896

LARGEST MANUFACTURERS OF AROMATIC RED CEDAR IN THE WORLD The Lichty Residence, Bryn Mawr, Pa. Architect: S. Kendrick Lichty, Bryn Mawr, Pa. Windows: Lupton Residential Aluminum Casements.

Lupton Windows

Steel or Aluminum

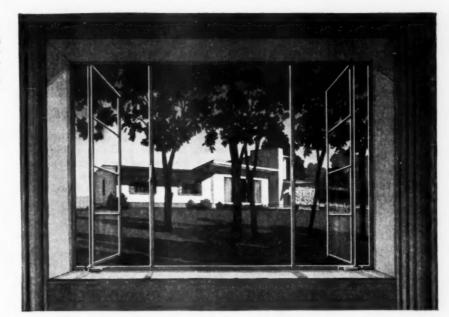












Buyers are funny...

... they trade in their cars . . . they replace their furnishings . . . they get new appliances . . . but when they buy "parts" for their homes they expect lifetime service.

They'll get it in their windows if you've installed Lupton Residential Casements. For new construction or remodeling, here are windows that offer much in beauty and service . . . plus long-range savings. Lupton Aluminum Casements' will never need paint . . . will always work easily and close tight.

From extruding the basic window members, of specially formulated aluminum, to final inspection, all manufacturing operations are done in the Flynn plant to insure rigid quality control.

- 1) Frames and ventilators are welded for maximum strength. Extended hinges permit cleaning both sides of the glass from within the room, help the open window to catch every passing breeze. The trim, smooth, die-cast hardware is designed to fit the hand.
- 2) Roto-Operators control ventilator movement, make it easy to open and close the windows without strain. Aluminum screens and storm panels are available that fasten on the roomside . . . makes the summerwinter change-over a quick, safe job.

Investigate Lupton Metal Windows now, there's a style for every building purpose, in steel or aluminum. See the complete line in Sweet's or write for General Catalog.

MICHAEL FLYNN MANUFACTURING COMPANY

700 East Godfrey Avenue, Philadelphia 24, Penna.

Member of the Steel Window Institute and Aluminum Window Manufacturers' Association

LUPTON METAL WINDOWS

Builders Large or Small
Cut Costs With

ONE-DER METAL



More builders are insisting on One-Der metal door and window frames. The one piece frame that easily fits any type of construction —brick, block or frame — complete assembly makes installing an ease.

Sizes conform to Metal Window Institute standards.



FOR BUILDINGS LARGE OR SMALL

ONE-DER

FRAMES FIT THEM ALL !

Quick, easy installation makes One-Der Metal Frames a boon to big or small builders alike — less carpenter laber! And pre-priming means less painting!

For further details see Sweet's file 15 a/On and 16b/On

Order TODAY from your dealer, listed in Yellow Pages of Telephone Directory, or write—

one-der frame

Corporation

P.O. Box 3068-Birmingham 6, Ala.

plastic siding provides complete home insulation

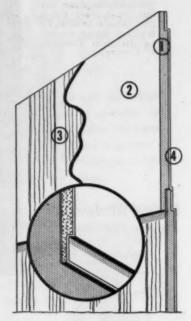
Available in white or gray, Inselsyde is a new insulating siding which consists of an insulating board saturated with a resin base plastic, and face-coated by a baked ceramic process with a second plastic. The back of each panel is aluminized for extra protection and strength. Finished in shadow-line serrations, a single panel of Inselsyde measures 48 inches long by 12 inches high. It is being introduced by Jones & Brown, Inc., Pittsburgh, Pa.

Panel installation is begun at the lower left hand corner of the lowest wall of the main structure. The bottom edge of the first course should be at least six inches above the ground level. Panels are staggered in courses to enhance appearance and give greater strength. Inselsyde can be applied to any wall surface that can be nailed into satisfactorily. Only white coated or etched aluminum nails, according to the panel color, are used in its installation, with nail placement scientifically planned to insure durable application.

The caulking compound used, provided in white or gray to match the panels, is made of the same basic material used in the coated surface of Inselsyde itself.

In applying the panels, the upper nails should be one-half inch from top edge of the panel to be concealed by overlapping panels in succeeding courses. The upper end nails are spaced one inch away from the vertical edges of the board, and the upper center nails are spaced approximately from the end nails. Four nails are used across the top of each panel.

The lower nails are inserted onehalf inch from the bottom edge of the panel, so that they pass not only through the panel being nailed, but also through the top of the panel underneath. The lower end nails are spaced one inch away from the vertical edge of the board. Center nails are spaced between the ends, using five nails across the bottom of each



Cross section of Inselsyde panel:

 Core of heavy insulating board is made from raw wood fibers containing millions of tiny air cells

2. Entire board is saturated and sealed with a penetrating, moisture resistant resin surface

3. Outside coat of thick white or gray plastic with shadow-line grooves keeps out dirt and muffles sound

4. Back of each panel is aluminized with an aluminum and wax coating for added life, protection and strength

panel. If furring strips are used, the nails holding the panels should be driven through them, yet without embedding the nail heads in the plastic surface.

Where the panels abut the vertical sides of window and door openings, a special aluminum molding end cap, fitting over the panel ends, insures a weather-tight seal around all

openings.

Added weather protection is insured by aluminum inside corner strips designed to weather-lock the corners where they meet. For added strength at outside corners, painted aluminum corners, which slide under the overlap at the bottom, are anchored with aluminum nails. An aluminum strip is also installed under window sills to seal out weather, while adding a decorative trim. Special aluminum drip caps are used as weather protection over window and door frames to serve as a draining channel for moisture and condensation.

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the whitest white Portland cement

... for the utmost beauty in architectural concrete units . . . terrazzo . . . stucco . . light-reflective uses . . . and better color jobs.

Use Trinity White Cement when you want the per-manence and workability of a portland cement plus the remarkable beauty of a brilliant white. So when you're asked for something that is better than the ordinary-you'll find that making it of Trinity White Cement is a most constructive suggestion. It's a true portland and meets all Federal and ASTM specifications. For descriptive literature, write Trinity White, 111 W. Monroe St., Chicago.

A Product of GENERAL PORTLAND CEMENT CO. . Chicago . Dallas . Chattanooga . Tampa . Los Angeles

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WINDOWS SELL HOUSES

... and E. L. Mackle, Coral Gables, Flat has proved it. Hope's Steel Residence

dows in these homes have buyer the extra features he wants: true storm-tight fitmin, minimum mainte-

Write for bulletin 102-BP for full information.

HOPE'S WINDOWS, INC., Jamestown, N.Y.

THE FINEST BUILDINGS THROUGHOUT THE WORLD ARE FITTED WITH HOPE'S WINDOWS

For

Perimeter We Chose

SONOAIRDUCT

Laminated FIBRE Duct

says Robert T. Curran, President of Servaire, Inc., Oak Park, Illinois, one of the heating contractors who helped complete 800 homes in



Thank you, Mr. Curran! Your state-

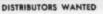
the privately-developed \$25 million dollar Illinois housing project-



Watch for announcement of Sonoairduct-XP (exposed) for attic and crawl space.

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SONOCO PRODUCTS COMPANY





VAPOR MOISTURE

product of tight construction - homeowners' problem, too

Editor's Note: Because moisture in the home is a universal problem the solution to which requires the joint efforts of the builder and homeowner, we felt this article, which appeared originally in the Chicago Metropolitan Home Builders Association's Bulletin would be of interest to all our

The presence of moisture in well constructed, modern homes has become the major problem of good tight construction. Like many other things, a moderate amount of moisture is healthful, wholesome and necessary, but too much is decidedly harmful, not only to the structure of the house but to the comfort and health of its occupants.

Solution of the problem does not lie exclusively with the builder but with the occupant as well. Homeowners should be apprised of the presence of vapor and advised how best to cope with it.

Thirty years ago little was known of thermal insulation. Heating plants were monstrosities calculated to heat large quantities of air which rose into houses from basements by virtue of the laws of gravity, or wa-

ter which found its way about by the same natural laws in the form of steam or hot water. The confinement of such heat as was created in this manner to definite areas was given scant consideration. Coal was cheap and neither the heating engineer nor the householder was concerned about "heating all out

Heat Ignored House Walls

doors."

The facts were that as heat ascended into homes it practically ignored the walls and ceilings with which it came in contact but passed through them, melting snow on roofs in cold weather and forming fringes of icicles that hung from all

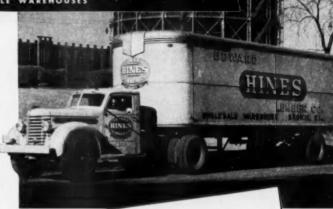
(Continued on page 282)



Edward HINES Lumber Co.

The Edward Hines Lumber Co.—serving lumber dealers in Illinois, Indiana, Michigan and Wisconsin for 60 years — presents a new addition to its line of quality home-building products.

The in-swinging Etling Window is now available through Hines wholesale warehouses in Skokie, Ill., and Park Falls, Wisc.



DISTRIBUTOR FOR THE IN-SWINGING String WINDOW

The Etling Window takes the work out of window washing. Just press a tab and both sash swing in for easy cleaning. It's packed with features for home builders and buyers alike.

* A SIZE AND STYLE FOR EVERY HOME

* A COMPLETE PACKAGED UNIT

* EASY TO INSTALL

For complete details, contact the Edward Hines Lumber Co., 3415 Howard Street, Skokie, Illinois, or write: The Etling Window, Department H1, Barberton, Ohio.

> BARBERTON OHIO



Latest "Trade Secrets" Success!



failed to mar this floor

-that's the beauty of Higgins Block*



After the first three exhibit days, visitors to the LIFE-NAHB "Trade Secrets" House built by L. P. Smith in New Orleans found it hard to believe that the immaculate, gleaming floors of richly grained Higgins Block had already been walked on by 24,000 people—equal to years of average wear! Visitors were further impressed by this list of Higgins advantages:

*SPECIFICATIONS:

9" x 9" net face hardwood blocks easy to install

3-ply cross-grain construction—when properly installed will not warp, buckle, cup or crack

Selected oak face—comes with final finish

Pressure bonded with marine-type glue—water-repellant, climate-proof

Deep-impregnated with famous new "Penta"—rot-proof, termite-proof

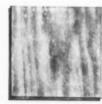
Grooved back anchors into adhesive —quiet and comfortable

Can be laid directly on concrete slab

--without special preparation

Blocks fit flush—without large, visible V-grooves

Higgins Bonded HARDWOOD BLOCK FLOORING INC. THE WORLD-FAMOUS BOAT BUILDERS



Use this coupon for free sample block and literature

Higgins, Inc., Dept. A-6, New Orleans La. Gentlemen: Please send sample block and literature to

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City......Zone....State.....

VAPOR MOISTURE

(Continued from page 280)

gutters. Sidewalls were subjected to the same sort of passage, though in a lesser degree, except in the presence of wind. Then leaky windows and doors added to the general movement of heat and rendered the windward side of homes almost untenable, forcing the family to seek refuge on the lee side. Little thought was given to vapor because such moisture as was created by household operations was promptly blown out or readily passed through plaster, wood or masonry along with the heat loss.

Then Came Insulation

Then came insulation and the realization that fuel and money might be saved and homes made more comfortable by its installation. By why apply insulation when heat was being blown out of homes through cracks and crevices? The answer was weather stripping and storm windows to complete the job and provide a better weather seal.

War, an Added Factor

With the advent of World War II the government set up some very rigid rules governing the amount of steel that could be utilized in home furnaces (then war housing). Home builders put on their mettle to do a tight, thoroughly insulated job in order to provide comfort, made the tight house even tighter. Thus the tight house with fixed windows. double panes, calking around openings and all of the other devices that ingenuity could create came into being. Heating plants became smaller, more compact and more attractive, and heat was placed here and there at will.

Moisture Rears Its Head

No sooner had the problem of creating a compact house that was livable been accomplished than another truth began to dawn: That while heat was successfully confined to the limited living area, so was a tremendous amount of moisture, created by humidifiers (deemed necessary), by cooking,

(Continued on page 284)

are these the finest

overhead type doors made?

Whether it's for a residential, commercial, or industrial installation, every Ro-Way overhead type door is designed, engineered and built to be the finest of its kind.

Finest in appearance—with clean, simple lines that blend well with any style of architecture, perfectly complementing the design of the structure.

Finest in construction—with mortise and tenon joints not only glued but steel doweled as well . . . muntins, rails and stiles squared up with precision . . . sections rabbeted to assure weather-tight joints . . . millwork both drum and hand sanded . . . heavy gauge steel hardware both Parkerized and painted after fabrication.

Firest in operation—with Taper-Tite track, Seal-A-Matic hinges, smooth-running ball bearing Double-Thick Tread rollers, and Power-Metered springs individually matched to the weight of each door.

No matter how you look at Ro-Way doors, you see that finest quality is engineered right into every detail. If that's what you want, specify Ro-Way on every job.



ROWE MANUFACTURING CO. 716 HOLTON ST., GALESBURG, ILL.



Nationwide sales and installation service. See your classified telephone directory for nearest Ro-Way distributor
Thurs's a Ro-Way, for, every Doorway.



MODELS FOR EVERY BUILDING NEED

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- 8' Floor-to-Ceiling Heights
- 6'8" Standard Heights

Glide-All Sliding Doors are "at home" in any surroundings . . . in small, medium or large buildings-moderately priced or luxurious. They are rugged and dependable, easily and inexpensively installed in any type of building. Use Glide-All Sliding Doors for standard closets, wall-to-wall closets, room dividers or partitions. Panels can be painted, papered, lacquered or varnished to match any room decoration.

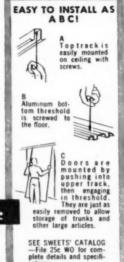
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VAPOR MOISTURE

(Continued from page 282)

by washing clothes, by washing dishes, by drying clothes, by bathing and by the evaporation of moisture from perspiring and breathing occupants. It was estimated that a family of four would create indoor moisture equal to 10 gallons

of water in a single day!

What became of this moisture? Since particles of vapor moisture are about 100 times more minute than particles of air, such moisture began passing out where the air could not go-through walls, ceilings, insulation and other constituents, condensing at a cold section in the outer walls where temperatures reached the "dew point." The moisture drenched everything with which it came in contact to the end that framing was rotted, insulation became a mucky mass, paint was blistered and forced off the exterior of houses, ice formed in overhead insulation and, when melted, came through the ceilings like roof leaks and an infinite amount of other damage was done.

Enter the Vapor Seal

Scientists who expressed their views largely through FHA said, "This will have to stop!" So the vapor-seal came into use. It was usually located just behind the plaster in new homes to confine the humidity to the inside and took the form of asphalted crafts either single or duplex or, where structures were already built, waterproof paints were applied on the inside.

These measures. successful though they were in saving the structure, still did not provide a final solution. They really confined the vapor which promptly diverted its attention to the ruination of everything inside-rotting window frames, sills and jams, rusting pipes, corroding domestic machinery to say nothing of clothing, furniture, carpets, draperies, unprotected walls and what not.

Adequate Ventilation— The Answer

The ultimate answer is adequate (Continued on page 286)



You can cut Siding Costs up to \$650 per home with

COLOR-GRAINED SIDING

Here are some cold figures to help you save cold cash on your next job. Choose Color-Grained Asbestos-Cement Siding instead of wood. These comparative construction costs reveal savings up to \$657 for an average home with 15 squares of siding. Here's a typical example:

Cedar Siding (34" x 10") @ \$32	5 per M
(including waste) x 15 sqs,	\$487.50*
Felt @ \$1.00 sq	15.00
Painting 15 sqs	350.00
Total cost of lumber construction	\$852.50

Color-Grained Siding	
@ \$12.00 sq. x 15 sqs	\$180.00
Felt @ \$1.00 sq. x 15 sqs	15.00
	\$195.00
\$852.50 - \$195.00\$657.50 S	AVINGS

For a real luxury siding on soft sheathing compare this perfect combination — Color-Grained Siding plus ShadoWedge Double Coursing Strips and Twist Nails. ShadoWedge (described at right) adds a new dimension to color and texture... deep shadowlines. And Twist Nails are the perfect fasteners (see panel at right). This deluxe combination still saves you \$545* compared to wood siding!

Not only does Color-Grained Siding save you money. Color-Grained is new and different with proven sales appeal. It's decorator-designed and color-styled in step with the latest developments in home planning...it never needs painting. And, to top all these great features, Ruberoid has added a new plus... Duroc, a protective finish that enriches the color, resists dirt, stains and weather.

Color-Grained Siding is the best buy on the siding market today . . . stylewise for your customers and economy-wise for you. See it soon at your Ruberoid dealer, or write for full-color folder. The Ruberoid Co., 500 Fifth Ave., New York 36, N. Y.

SHADOWEDGE The extra cost of ShadoWedge# is negligible when you consider its advanlages, It's a lapered asphalt undercours. ing strip with a thicker lower edge that thrusts the siding shingle forward. Result rich deep shadow lines that add a look of luxury to sidewalls. ShadoWedge also provides extra weather protection. Designed especially for fastening shingles to non-lumber sheathing, Twist Nails anchor TWIST NAILS to non-number sneaming, twist reals anchor Color-Grained Siding with a lock-light grip. Color-Grained Siding with a lock-tight grip. They're easy to apply too. Your apprentice than was can drive them into place fasts Twist Mails cost no or helper can twist them into place faster than you can drive them. Twist Nails cost no more. No special knack to driving. Twist Nails are the simplest, most accommissional and More, No special knock to arrying. Iwist Noils are the simplest, most economical, and Nois are the simpless, most economical, and one of the most effective special fasteners on the market today!

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The RUBEROID Co.

ASPHALT AND ASBESTOS BUILDING MATERIALS



... when buyers notice they are built with MALT-A-MASTER wood window units with removable sash.

MALT-A-MASTER wood window units connote "quality." Here is a unit with removable sash, built-in weatherstrip and invisible balances. Since Malta mills them, you are sure of precision milling, quality woods and the most careful workmanship. The price is less than you would expect.

MALT-A-MASTER makes your houses stand out and keeps them

Malt-a-Master

makes your houses STAND OUT



Sash can be removed in a matter of seconds for easy window washing or painting.





VAPOR MOISTURE

(Continued from page 284)

ventilation and this does not mean mechanical ventilation exclusively. The householder must take a hand. A kitchen exhaust fan is a "must." Windows should be raised after bathing. Rooms or basements should be aired after washing or drying clothes. A continuous careful check should be maintained; windows should be watched for when they steam, there is too much humidity.

Hygrometer a Useful Instrument

The purchasers of new homes should provide themselves, or be provided with hygrometers, or other devices that record relative humidity. Such instruments tell promptly whether the moisture content of the inside air is too high. Safe limits of indoor relative humidity vary with the outside temperature.

Professor Rowley's Tables

Professor Frank B. Rowley at the Engineering Experiment Station of the University of Minnesota, in the process of extensive research, has provided a simple table by which a householder can regulate his indoor humidity to provide the best results. The table is predicated upon a constant indoor temperature of 70° F.

When Outdoor	Indoo	r Hu	midity
Temperature is:	should	nof	exceed
-20°	15	per	cent
-10°	20	09	99
- 0°	25	500	**
10°	35	**	**
20°	40	89	89

Forty per cent relative humidity is a safe top limit for all winter weather.

Other Signs

Lacking a hygrometer, estimates may be made from other tell tale signs. When windows begin to steam there is too much moisture. If storm windows are used, raise the inside sash and note whether or not the storm sash glass steams. The amount of precipitation on the glass will be in proportion to the outside temperature and will closely follow the preceding table,

NORTHWEST BUILDERS' CHOICE FOR SURE SALES:



George Bell



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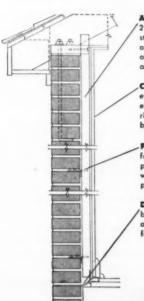
"Trade Secrets" house in SCR brick*



LET THESE "SCR brick" FEATURES SELL FOR YOU

LOW INITIAL COST. This larger, thru-the-wall brick cuts costs by eliminating "backup," speeding construction. Meets all national building code requirements for single-story houses.

CUSTOMER PREFERENCE. Most people want brick—for maintenance savings, lower fire insurance rates, higher re-sale value, lasting beauty.



ALL-WEATHER PROTECTION

2" air space formed by furring strips acts as moisture barrier and insulating space for yeararound comfort, reduces fuel or air-conditioning costs.

CHOICE OF INTERIORS Variety of finish is offered through either plaster or dry wall materials — with protection assured by central air space.

PRECISION-BUILT Special furring clips preserve strips by preventing contact between wood and masonry, also simplify construction.

DRY WALLS Weep holes and base flashing keep cavity dry an inexpensive built-in sales feature, visible on exterior. "'SCR brick' made it possible for us to build even more sales appeal into the popular NAHB 'Trade Secrets' house—at a cost that compares favorably with the best offered in frame.

"Buyers like the handsome appearance of 'SCR brick' in the exterior walls, the big-scale fireplace, patio walls and barbecue. And they are quick to see its practical advantages, too—sound construction, permanence, fire-safety, lower maintenance costs.

"The 'SCR brick' is easy to build with. One unit in one operation builds the wall. It goes up fast, and we save on materials. We plan to use it in most of our 'Trade Secrets' houses."

free booklet "HOW TO BUILD HOMES THAT SELL WITH THE "SCR brick" gives full construction details. To get one, just write us on your own letterhead. Address: Dept. AB-6.

*Reg. TM, SCPRF, Patents Pending

STRUCTURAL CLAY PRODUCTS INSTITUTE



1520 18th Street, N. W., Washington 6, D. C.



... than non-weatherstripped windows by actual test of weatherstrip manufactured by members of the Weatherstrip Research Institute. (University of Minnesota Institute of Technology Testing Laboratory.) Effectiveness is greater than 6 for average or poorly fitted windows.

Reduction in Air Infiltration Through Windows Due to Weatherstripping (Unlocked—no storm sash)

	Par Internation		
Type of Fit	Weather- stripped	Neather- stripped	Weatherstrip Effectiveness†
Well	14.2	61	4.30
Average	16.7	104	6.24
Poorly	23.8	163	6.85

*At a pressure of 0.20 inch of water (20.4 mph wind velocity).

†Ratio of non-weatherstripped to weatherstripped par-infiltration.

The above facts, plus the complete story on weatherstripping is presented in Bulletin No. 35—"Air Infiltration Through Weatherstripped and Non-Weatherstripped Windows," published by the University of Minnesota, Institute of Technology. The facts showing the economic value of weatherstrip are based on over-all research of climatic conditions in 12 selected cities in the U.S. covering a full range of weather conditions.





Stacking a louver unit into a window wall. Note channel in the end of vent unit (top)

self-stacking windows offer variety of design

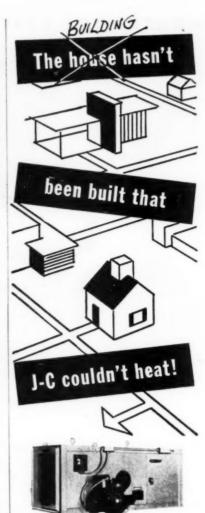
A new modular self-stacking window system which consists of a fixed window unit, a ventilating window unit, a wood louvered ventilating unit and an insulated wall unit, each 4 feet wide, 2 feet 4 inches high and 4% inches thick is available. These units interlock to stack in any combination desired, either horizontally or vertically. Each has a load bearing factor of 2,400 pounds.

The vent units, with exterior louvers and adjustable drop-down interior ventilation door, have a removable built-in screen, also available in half or quarter sizes so as to provide narrow strips of ventilation. Builders can achieve a variety of design effects with these units.



Inside view through a section of window wall assembled from modular units

The modular units offer simplicity of erection; their self-stacking feature enables them to be assembled into a wall, using only a screw driver and hammer. The top, bottom and ends of all units are (Continued on page 289)



The J-C line of warm air heating units doesn't stop at the residential level. The space-saving J-C Suspension Series meets all requirements up to 1,000,000 Btu and, where desired, can be used in batteries for large-scale heating.

In floor type models, the J-C Powe-Rated Series is "job-specified" to meet all requirements up to 3,800,000 Btu output. The J-C Poweraire Series, with outputs from 152,000 to 320,000 Btu fills the need for a conventional floor type unit in residences and small commercial buildings.

When you think of heating, think of America's most complete line of warm air heating equipment . . . the J-C line!

J-C JACKSON & CHURCH CO.
Saginaw, Michigan

self stacking windows

(Continued from page 288)

provided with two grooves for inserting splines, packaged with each unit, which serve as a strengthening interlock and provide an additional seal against infiltration of moisture and air. All joints are concealed by matching, integrated exterior trim. For residential construction, including an 8 foot 2 inch ceiling with average roof load, a span of two 2x6 headers is sufficient.

The units are said to be suitable for any type of wall, residential or commercial, and for either new construction or remodeling. The manufacturers, Solar Air-Flo, Inc., Elkhart, Indiana, say the ventilating units come with built-in screens, are glazed with double insulating glass and have weather strip construction at the joints.

how to give redwood beams a driftwood finish

Point a power saw parallel to the grain but pull the saw across the grain. This will result in removing about one-sixteenth inch in a strip one inch wide. Do it at intervals of an inch or two. Then use a wire brush mounted on a sander, using it in the direction of the grain.



Next, stain the beams with a cement and water solution. The alkali in the cement turns the redwood black, and when it dries, the cement leaves a gray powder on the surface. Wipe off the powder with a stiff bristle brush to the desired color.

The black and gray gives the driftwood effect, which can be stabilized by coating with Carnauba wax. The black remains in the grooves cut by the wire brush.

This method was worked out by Bob Crowe of San Gabriel, California, builder of custom homes.

PANELYTE

HIGH-PRESSURE LAMINATE

FOR SINK-TOPS AND WALLS in kitchens and bathrooms Easiest to install
Quality Plastic Surface





Now you can install **PANELYTE**On - the - Job

PANELYTE

is also your answer to Shop Fabricated Jobs

REGULAR Panelyte (1/16" thick) for bonding to plywood, is ideal for jobs fabricated in the shop. This durable, beautiful plastic for table-tops and work-surfaces has proved its dependability in homes, hotels, stores, restaurants and institutions for many years. It is the same fine laminate as 1/10" Panelyte, except in thickness. Complete range of colors and effects.

NO COSTLY DELAYS. Your men can install the new, heavier Panelyte—or local sub-contractors can easily handle the job. Composed of laminated plastic throughout its 1/10" thickness, this new form of Panelyte is beautiful and durable!

Installation is easy and quick, using metal moldings and ordinary hand tools. Large sizes, to 4' x 10', for fewer joints and more one-piece surfaces. And you'll have mighty attractive results to show—beautiful surfaces that will last a lifetime.

Panelyte in both thicknesses is available through dealers. Ask your dealer today or send coupon for complete information.

PANELYTE

The Decorative Surface

Panelyte is made by St. Regis Paper Company famous for paper and plastic products of highest quality. Panelyte Division

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Please send me name of my nearest Panelyte dealer and complete information about Panelyte.

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ALUMINUM WINDOWS
Help sell houses

Easier...Faster...

PER-FIT Aluminum Windows offer • Enduring beauty—ye

PER-FIT Aluminum Windows offer custom quality at mass production prices to the contract builder of fine homes. Tomorrow's window TODAY!

BEST-VENT Aluminum Windows, surprisingly low in cost, are ideal for project builders of low to medium cost houses. Automatic adjusting, draft-free ventilation feature sells it.

- Enduring beauty—yet no upkeep effort no painting
- Easy to open—yet weather, water and insect-tight
 All corners smooth mitred—precision machined—no bumps, snags, holes or overlaps
- Smooth-sheen finish—wipes clean with dry cloth
- Never rot, rust, warp, or swell
- Lifetime "Ventiseal" glazed—no putty problems—yet easy to replace glass
- Storm sash and screens easily hung, removed and stored.



Check the yellow pages — Check the "Yellow Page" listings

Check the "Yellow Page" listings in your Telephone Back—for your BEST-VENT and PER-FIT Dealer or contact the factory.

Manufacturers of the World's finest Windows

1200 East 52nd St., Indianapolis 5, Ind.



Safety rules for work with ladders and scaffolding

A carpenter was climbing a ladder, a rung broke and he fell to the ground. Investigation disclosed that the rung had broken through a knot,

 Ladder rungs should be manufactured from knot-free lumber. In this case, an equipment inspection should have revealed the defect.

While a carpenter was descending a fixed ladder, his foot slipped between the rungs of the ladder. Investigation showed that the rungs of the ladder were covered with ice.

Under weather conditions where ice may be present, all fixed ladders should be carefully inspected and all ice removed before the ladders are used.

A carpenter tried to carry a piece of lumber up a ladder. He lost his balance and fell to the ground.

3. Employees, climbing ladders, should never attempt to carry lumber or other materials. The material should be passed from one employee to another, or it should be raised by a hand line or by mechanical lifting equipment.

A workman was using a ladder to climb a scaffold. When the ladder slipped he fell against a brace on the scaffold. Investigation disclosed that the ladder was not equipped with safety shoes and that the base of the ladder had been placed too far away from the scaffold.

4. Ladders which are not anchored should be equipped with safety feet. Workmen should be carefully trained in the safe use of ladders. Generally, ladders should not be placed more than one foot away from the vertical line of support for every four feet of height to the support.

An employee was standing on a scaffold. One of the scaffold boards broke, throwing the workman to the ground. Investigation disclosed that the 2x10 plank split through a large knot,

All lumber used in scaffolds should be inspected before being used and only lumber which is free of large knots should be used for platform planks.

The scaffold on which a carpenter was working collapsed and he fell to the ground. Investigation disclosed that the

(Continued on page 292)

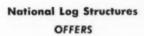
290

AMERICAN BUILDER

NATIONAL PRECISION CUT

DOUGLAS FIR LOGS ARE

SIMPLE AND FAST TO LAY-UP



DURARIE DOUGLAS FIR RUILDING LOGS

Splined logs - Precision cut - Bark peeled — Chemically treated

READY TO "LAY-UP"





is the labor-saving material to meet the nonular demand for rustic type homes and commercial buildings

National Douglas Fir Logs are squared on three sides and precision cut with no taper to widths of 7", 8" or 9 inches and lengths of approximately 8' 3". Grooved on too and bettom to receive wanden saline which is furnished with the logs. Inside surface of log is planed and may be used as the finished interior wall. Very good for houses, restaurants, motels, lodges, resorts, etc. AVAILABLE NOW, Write direct to mill for anotations.

Satined inints easily water and weatherproofed with cautking compound or mastic.

TIONAL LOG STRUCTURES INC STAYTON OREGON



he sure wall heater installations comply with new venting requirements

METALBESTOS WALL-VENT B-W gas vent for installation with recessed wall heaters.

Listed and approved by Underwriters' Laboratories, Inc. as a Type

The American Gas Association now requires that recessed wall heaters be marked specifying the type of vent to be used. In addition, Underwriters' Laboratories has established a new designation, Type B-W, applying to vents specifically approved for use with recessed wall heaters. Compliance with these requirements will insure better, safer venting and help to eliminate customer complaints resulting from faulty installations.

Write for new folder showing approved method of installing wall heater vents for both new and existing construction. No cost or obligation.

METALBESTOS WALL-VENT IS APPROVED FOR INSTALLATION INSIDE 2"X 4" COMBUSTIBLE WALLS

- No Furring Out Required
- No Extra Insulation Needed

Metalbestos Wall-Vent, the first and leading gas vent specially designed for venting wall heaters, meets all A.G.A. and U.L. requirements. Its insulated double-wall design assures proper venting and protects walls from dangerous overheating. Made of rust-proof aluminum, it resists the corrosive action of vent gases, lasts the lifetime of the house itself.

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PREVENT that ACCIDENT

(Continued from page 290)

scaffold had not been designed to carry the weight imposed upon it.

 Scaffolds should be carefully designed for the maximum expected loads, which should not be exceeded.

As an apprentice was nailing one end of a 2x12-inch plank to a post, the other end jarred loose and fell. To avoid being hit, the apprentice stepped back and fell from the unguarded scaffold upon which he was working.

7. Scaffolds should be constructed with guard rails and toeboards. Sufficient help and adequate supervision should be provided for all operations. In this case, a second workman should have been assigned to hold one end of the plank.

The middle plank of a three-plank scaffold slipped and the workman standing on it fell to the floor. Investigation disclosed that the platform plank had not been nailed.

 All platform planks should be securely fastened to prevent their slipping or turning.

A carpenter was standing on a bracket scaffold which collapsed and threw him to the ground. Investigation disclosed that the metal bracket holding the scaffold had been nailed to a soft white pine studding and that the traffic on the scaffold had loosened the nails.

9. Brackets used in scaffolds should be bolted in accordance with the American Safety Standard A 10.2—1944, Safety Code for Building Construction.

A carpenter laid his hammer on a scaffold. Later, when he accidentally kicked it, the hammer fell, striking a second carpenter working under the scaffold.

10. Whenever practical, work assignments should be planned to avoid anyone having to work in unprotected areas when other operations are being performed overhead. In this case, one of the operations should have been delayed until the other was completed. Also and in any case, all workmen should be thoroughly trained to work safely. In this instance, the carpenter should not have placed his hammer where he was likely to strike it with his foot.

A helper on the ground was handing 8-foot 2x4's to a carpenter on a scaffold. (Continued on page 294)



Brighten your sales picture with DAYLIGHT

Let Insulux Glass Block help you sell your homes faster in '53 by adding visible evidence of extra value.

For example, what woman wouldn't love a kitchen as cheery and bright as this one? What woman wouldn't like a kitchen that's flooded with daylight and easy to keep spic-and-span? You can build these desired selling features into the kitchens of your homes by including panels of Insulux Glass Block®.

Insulux combines privacy with beauty
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For information about these uses of Insulux or for help with a specific problem, just write Insulux Glass Block Div., Kimble Glass Company, Dept. AB 6, Box 1035, Toledo 1, Ohio.

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alignment, assure smoothly operating drawers throughout a lifetime of use. Installation is quick and easy. AND because they allow a simplified drawer construction and faster fitting of drawers, save important time and labor. Six styles, they fit readily into your plans

AND TWO

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PREVENT that ACCIDENT

(Continued from page 292)

He released one of the pieces before the carpenter had obtained a good grip on it and it fell on his head.

11. This was a case of poor teamwork. Coordination of effort is essential for safety. One person in the team should signal each move and the others should carefully follow. In this instance, the carpenter should have called the moves, because he alone could tell when he had control of the material.

A carpenter was working from a ladder which was standing on soft ground. The ladder tilted as one foot sank into the ground and the carpenter jumped, fracturing his foot.

12. If the ladder had been equipped with safety feet, this accident might not have happened. If the ladder had been secured at the top, the accident might have been avoided. The carpenter should have checked the footing of the ladder.

Analysis by the Division of Safety Standards of the

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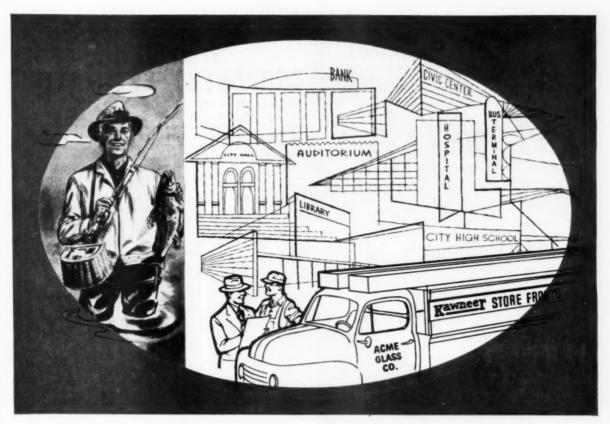


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In this way the living area is given an unusual sense of spaciousness, and also traps heat from the winter sun, thus saving fuel. The angled construction posed some problems when it came to laying asphalt tile floors, but in the end Scheife estimated that it had cost him only about \$25 extra.

The wide roof overhang is also important to the looks of this house type. It extends over all four walls, from one to three feet. In place of gutters and drain pipes, Scheife used a metal drip edge along the overhang. Building cost totaled about \$11,500.





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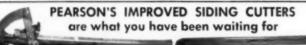


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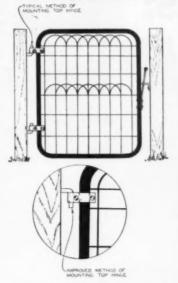
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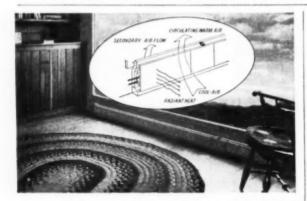
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blower-filter units provide uniform heat

The problem of uniform warm air heating for homes has been largely solved by the attachment of the blower-filter unit to the furnace, providing even, forced heat distribution as well as clean, filtered circulation of air. The device is of



Installing the blower-filter unit is a simple one-man operation of three or four hours

particular benefit in existing homes, with no changes required in the distribution piping, as greater stress is being laid on home modernization programs.

The complete unit consists of a motor-driven fan encased in a steel cabinet. It can be located in basement or utility room, permitting more efficient use of space. More head room can be achieved with the use of smaller diameter pipes as the heated air is circulated under pressure.

The installation can be accomplished in from three to four hours, during which time the furnace is shut down. Steps are listed in order, to clarify the one-man operation:

1. Clean existing system thoroughly

- 2. Install the baffle
- 3. Construct the blower platform
- 4. Install the blower
- 5. Install electrical wiring
- 6. Provide cold air returns
- 7. Balance the system
- 8. Adjust the blower speed
- 9. Set the blower control

The blower-filter unit serves to heat all rooms of the house uniformly. Heat distribution is rela-(Continued on page 302)





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blower filter units

(Continued from page 301)

tively simple, since the heating system no longer depends upon gravity alone, the heat being forced from the furnace by the blower fan to reach all the rooms equally, resulting in less heat waste and less fuel consumption.

As the air is constantly circulating, it is estimated that within the average-sized room, the air is changed as many as 75 times daily. The purifying action of the filters of the unit leaves the air cleaner and more healthful. In summer, if basement windows are left open at night, cool air can be circulated through the house during the day by means of the filter-blower unit.

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The new plant is designed to afford maximum light and ventilation. Lok awning windows and Windo-Tite Jalousies are used throughout in an expanse of eight foot high glass walls of light.

proposed changes in FHA residential water heating requirements

FHA headquarters is considering revisions to current minimum requirements on domestic water heating and storage. At present the requirements fix the classification of water heating by the number of bathrooms. FHA holds that the classification of water heating equipment should be determined by the type of equipment installed in the particular house and by the probable number of occupants. The following changes are under consideration:

1. Elimination of present accepted use of instantaneous (tankless) heating coils without a separate storage tank:

2. When domestic hot water coils in steam or hot water boilers are used, an additional storage tank would be required placed in series with the coil heater:

3. Setting up a table establishing the size of domestic hot water tank based on the type of equipment to be installed in the house and based on the estimated number of people in the family. The minimum capacity of such tanks in any case would be not less than 30 gallons in a one-bathroom unit where clothes or dishwashing equipment is installed and not less than a 40-gallon tank in a living unit with two or more bathrooms:

 The minimum recovery rate of the heating coil to be set at 20 gallons per hour with a 100 degree rise in temperature;

5. The net boiler rating to be increased not less than 15,000 B.T.U.'s over the heating load when a domestic hot water system is made a part thereof;

6. Prohibition of galvanized tanks in areas where corrosive minerals in the water supply are known to exist. PYROFAX Gas is quick and easy to install . . . distributor service is outstanding!" SAYS BUILDER TAMBONE



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J. Tambone President



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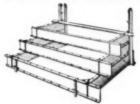


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> Easy to Handle and Place. Both the heavy and light gauges of Clinton Welded Wire Fabric flatten quickly and easily from the roll.

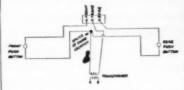
If you would like detailed information on Clinton Welded Wire Fabric and its many applications, write the office nearest you.

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wiring arrangements for door chime installation in homes

Various wiring arrangements have been suggested for a door chime installation in homes. The basic diagram, illustrated, is suggested by chime manufacturers as the most desirable, however, because (1) it is easier to service than any other wiring arrangement; (2) it is a simpler arrangement than any



Basic wiring arrangement for door chime installation: no extra wiring will be required for future installations of more chimes

other; (3) should a more elaborate chime need to be installed in the future, no additional wiring is required, and (4) the wires run to one point. Its only disadvantage is that initially it requires about 15 per cent more wire than other arrangements.

It is wise to select a chime loud enough to be heard throughout the home: if the builder is installing the chime in a ranch type house, two chimes should be considered. The chime should be placed in a central location. Long tube models are louder than "reed" type chimes. If the long tube is installed, it is advisable to place it in a wall recess so that the tubes cannot be bumped in passing them. Quality push buttons should be used. To insure continued operation, the installer should use No. 18 wire. A chime transformer, producing ten volts, rated at five to ten watts, should be used. The installer should look for the symbol of the Underwriters Laboratory on the transformer

Door chimes are placed in the living area, generally in the hall; the transformer is usually placed in the basement, or wherever the main power source is located. After the location of the chimes and trans-

(Continued on page 307)



Builder: Nordale Realty Company, Milwaukee, Wisc. Patek Brothers, Inc., Glazier.

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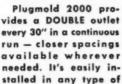
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THE WIREMOLD CO. Hartford 10, Connecticut

wiring arrangements for door chimes

(Continued from page 305)

former is selected, the builder should follow the suggested wiring diagram, making the proper connections between wires and terminals, and being sure that all connections are tight and clean. Short circuits resulting from loose wires can damage both chimes and transformer. Once the correct connections are made, trouble free operation of the chimes should result.

Unusual circuits and multiple chime installations have not been discussed, due to their comparatively scarce application in the average single family home.

swimming pool built for \$130



The 800 square foot pool contains 20,000 gallons of chlorinated water, is six feet deep in the $6\frac{1}{2}x25$ foot center diving area

Don Todd, a home owner in Yorba Linda, California, has built a private swimming pool on his own land for only \$130 and his own labor.

The pool is 20x40 feet and has a gradual slope to a depth of six feet in the center. The center depth has an area of $6\frac{1}{2}x25$ feet, suitable for diving. The pool contains 20,000 gallons of city water. Chlorine is added every five days and the entire pool is emptied once a month. It has natural drainage and a two-foot cement apron around the perimeter.

Cost of building the pool breaks down as follows:

Bulldozer—two hours work to deepen the pool site \$ 15 Six yards of concrete readymix 60

(Continued on page 308)



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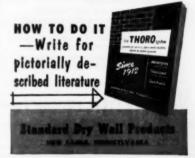
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247 Colorado Ave., Buffalo 15, N.Y.

swimming pool

(Continued from page 307)

Three rolls of 11/2x17 Sierra stucco netting Drain pipe Labor-three men. three hours each to finish off cement ...

Total \$130

As builder of the pool, Todd naturally put in considerable time on the end of a shovel, and also brushed on the waterproof cement himself. After the hole was dug by bulldozer and prepared for the cement. gravel was laid over the dirt and stucco netting laid over the gravel. Since the slope is so gradual-only 40 degrees-no forms were needed to hold the cement. The flat side of a 2x4 was used for the two-inch fill of cement; this was pulled all



Ready-mix concrete being poured for the two-inch foundation for the pool bottom

around the pool as the cement was poured.

The pool was rodded smooth after the cement was poured. A brush coat of cement and sand was dashed over the entire surface of the pool after the two inches of cement had dried

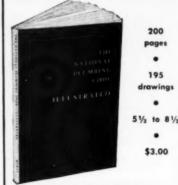
The ready-mix concrete was a standard mix, with pea rock the largest of the stones in the mix. The netting was lapped four inches and was laid flat, with the cement poured over it. Netting was pulled up to the middle of the two inches of cement.

Although there are no barriers around the pool's edge, the pool is nearly in the middle of Todd's large acreage and danger of anyone falling in is slight.

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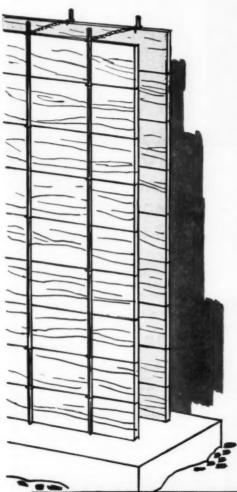


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tips in using **POWER TOOLS**



Photo courtery of Marwell Dorne

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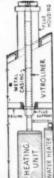
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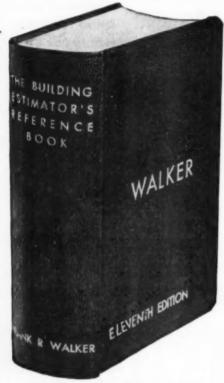
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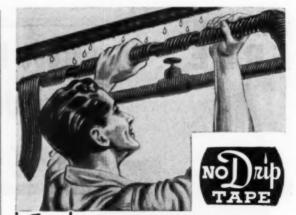
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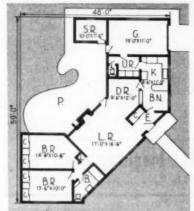
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Setback requirements will usually (Continued on page 317)

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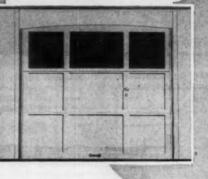
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designs for corner lots (Continued from page 315)



take a good portion of a corner lot, so Seitz & McTaggart build close to the sidelines and keep the house fairly narrow. In this way they get a sizable backyard. This also makes the house appear to be much larger than a conventional house of the same floor area.

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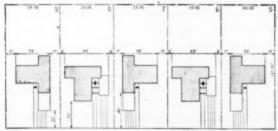


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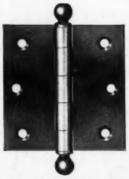
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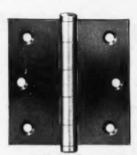
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